Last Minute Revision

UKMLA

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292 conditions · 17 systems · NICE/BNF aligned

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Arterial Thrombosis
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Palpitations, SOB, syncope, fatigue. Often asymptomatic.
Congestive Heart Failure
Unilateral calf swelling, pain, warmth. Risks: surgery, immobility, cancer, COCP.
Infective Endocarditis
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Myocarditis / Pericarditis
Patient on Anticoagulant / Antiplatelet Therapy
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Severe/late: Rest pain (worse at night, hanging foot out of bed relieves it).
Pulmonary Embolism (PE)
Pulmonary Hypertension
Right Heart Valve Disease (Tricuspid/Pulmonary)
Transient Ischaemic Attack (TIA)
Varicose Veins, Venous Ulcers, & VTE

Respiratory (28)

Cough <3 weeks (clear/green sputum), mild SOB, wheeze, viral malaise.
Asbestos-related lung disease
Asthma
Bronchiectasis
Bronchiolitis
Chronic Obstructive Pulmonary Disease (COPD)
COVID-19
Can progress to severe respiratory failure.
Croup (Laryngotracheobronchitis)
Cystic Fibrosis
Epiglottitis
Fibrosis)
May have a history of smoking.
Influenza (The Flu)
Outbreaks typically occur in winter.
Acute cough, purulent sputum, fever, breathlessness, chest discomfort.
Lung Cancer
Mesothelioma
Obstructive Sleep Apnoea
Occupational Lung Disease (Silicosis/Coal Worker's)
Pleural Effusion
Pneumonia
Pneumothorax
Secondary: patients with underlying lung disease (COPD/Asthma).
Sarcoidosis
Sleep Disorders (Obstructive Sleep Apnoea)
Tuberculosis (TB)
Upper Respiratory Tract Infection (URTI) & Tonsillitis

Gastroenterology & Hepatology (43)

Acid-base abnormality
RUQ pain, high fever/rigors, and jaundice (Charcot's Triad). Dark urine.
Acute Pancreatitis
Alcoholic hepatitis
Anal Fissure
Appendicitis
Ascites
Associated with liver cirrhosis, heart failure, or abdominal cancers.
Biliary Atresia
Cholecystitis (Acute)

Cirrhosis
Coeliac Disease
Colorectal Cancer
Constipation (Paediatric and Adult)
Crohn's Disease
Diverticular Disease
Gallstones and Biliary Colic
Gastric Cancer
Gastro-oesophageal Reflux Disease (GORD)
Worse after large meals or lying down.
Haemorrhoids (Piles)
Hepatitis (Viral - Acute)
Hernias (Inguinal/Femoral)
Hiatus Hernia
Infectious Diarrhoea / Gastroenteritis
Intestinal (Mesenteric) Ischaemia
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Intussusception
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Pancreatic Cancer
Peptic Ulcer Disease
Perianal Abscesses and Fistulae
Peritonitis
Pyloric Stenosis
Ulcerative Colitis (UC)
Volvulus & Whooping Cough

Neurology & Neurosurgery (31)

Bell's Palsy
Brain Abscess
Brain Metastases
Cerebral Palsy
Cluster Headache
Delirium
Dementia (Alzheimer's)
Encephalitis
Epilepsy
Essential Tremor
Family history common.
Febrile Convulsion
Meningitis (Bacterial)
Migraine
Motor Neurone Disease (MND / ALS)
Multiple Sclerosis (MS)
Muscular Dystrophies (e.g., Duchenne)
Myasthenia Gravis
Neuropathies (Guillain-Barré Syndrome)
Parkinson's Disease
Radiculopathy / Sciatica
Raised Intracranial Pressure (Idiopathic/General)
Spinal Fracture / Injury
May have numbness, tingling, or inability to move limbs.
Subarachnoid Haemorrhage (SAH)
Subdural Haemorrhage
Tension Headache
Trigeminal Neuralgia
Vitamin B12 and/or Folate Deficiency
Wernicke's
Wernicke's: alcoholic with sudden confusion and wobbliness.

Endocrinology & Metabolic (21)

Chronic fatigue, weakness, weight loss, salt craving, dizziness on standing.
Cushing's Syndrome
Diabetes in Pregnancy (Gestational)
Diabetes Insipidus
Diabetic Ketoacidosis (DKA)
Diabetes.
Diabetic Nephropathy
Diabetic Neuropathy
Hypercalcaemia of Malignancy
Hyperlipidaemia / Dyslipidaemia
Hyperosmolar Hyperglycaemic State (HHS)
Hyperparathyroidism (Primary)
Hyperthermia and Hypothermia
Hypoglycaemia
Hypoparathyroidism
Hypothyroidism
Obesity
Osteomalacia / Rickets
Pituitary Tumours (Adenomas)
Thyroid Nodules / Thyroid Eye Disease
Polyuria, polydipsia, weight loss, fatigue, recurrent thrush/infections.

Renal & Urology (11)

Benign Prostatic Hyperplasia (BPH)
Storage (frequency, urgency, nocturia).
Bladder Cancer
Chronic Kidney Disease (CKD)
Dehydration
Epididymitis / Epididymo-orchitis
Nephrotic Syndrome
Prostate Cancer
Sexual Dysfunction (Erectile Dysfunction)
Testicular Torsion
Urinary Tract Infection (Upper / Pyelonephritis)

Musculoskeletal (19)

- Ankylosing Spondylitis
- Bursitis
- Carpal Tunnel Syndrome
- Crystal Arthropathy (Gout)
- Fibromyalgia
- Idiopathic Arthritis (Juvenile - JIA)
- Joint Dislocation (e.g., Shoulder)
- Lower Limb Fractures (Neck of Femur)
- Lower Limb Soft Tissue Injury (ACL Tear)
- Osteoarthritis
- Commonly affects knees, hips, and small joints of the hands.
- Osteomyelitis
- Osteoporosis
- Polymyalgia Rheumatica (PMR)
- Reactive Arthritis
- Rheumatoid Arthritis
- Septic Arthritis
- Systemic Lupus Erythematosus (SLE)
- Upper/Lower Limb Fractures & Soft Tissue Injuries

Haematology & Oncology (14)

- Lethargy, SOB on exertion, palpitations. Hx of heavy periods or GI bleeding.
- Breast Cancer
- Disseminated Intravascular Coagulation (DIC)
- Essential Thrombocythaemia, Myelofibrosis)
- Haemochromatosis
- Haemoglobinopathies (Thalassaemia)
- Minor/Trait is usually asymptomatic. Common in Mediterranean/Asian descent.
- Haemophilia (A and B)
- Leukaemia (General)
- Lymphoma (Hodgkin and Non-Hodgkin)
- Metastatic Disease (General)
- Multiple Myeloma
- Pancytopenia
- Sickle Cell Disease / Crisis

Mental Health & Psychiatry (14)

- (PTSD)
- Anorexia Nervosa
- Anxiety disorder: generalised (GAD)
- Anxiety, phobias, OCD
- Attention Deficit Hyperactivity Disorder (ADHD)
- Autism Spectrum Disorder
- Bipolar Disorder
- Borderline)
- Depression
- Non-Accidental Injury (Child Safeguarding)
- Schizophrenia
- Self-Harm
- Somatisation (Somatic Symptom Disorder)
- Substance Use Disorder (Alcohol Dependence)

Obstetrics & Gynaecology (26)

- Atrophic Vaginitis
- Bacterial Vaginosis
- Breast Abscess / Mastitis (Non-Lactational)
- Cervical Cancer
- Cervical Screening (HPV Programme)
- Cord Prolapse
- Ectopic Pregnancy
- Endometrial Cancer
- PCOS, Tamoxifen use.
- Endometriosis
- Fibroadenoma
- Fibroids (Uterine Leiomyomas)
- Mastitis (Lactational)
- Menopause
- Miscarriage
- Ovarian Cancer
- Pelvic Inflammatory Disease (PID)
- Pelvic Organ Prolapse
- Placenta Praevia
- Placental Abruption
- Polycystic Ovary Syndrome (PCOS)
- Postpartum Haemorrhage (PPH)
- Pre-eclampsia
- Prematurity / Pre-term Labour
- Termination of Pregnancy
- Vasa Praevia

Dermatology (17)

- Acne Vulgaris
- Atopic Dermatitis (Eczema)
- Basal Cell Carcinoma (BCC)
- Blepharitis
- Cellulitis
- Contact Dermatitis
- Cutaneous Fungal Infection (Tinea / Ringworm)
- Cutaneous Warts (Verrucae)
- Folliculitis
- Head Lice
- Impetigo
- Pressure Sores (Decubitus Ulcers)
- Psoriasis
- Triggers: stress, strep throat, certain drugs (beta-blockers).
- Scabies
- Skin Cancer (Melanoma, SCC, BCC)
- Urticaria, Varicella, & Viral Exanthema

Ophthalmology (15)

- Acute Angle-Closure Glaucoma
- Cataracts

Central Retinal Artery Occlusion
Chronic (Open-Angle) Glaucoma
Conjunctivitis
Intensely itchy, watery, bilateral.
Hordeolum)
Infective Keratitis (Corneal Ulcer)
Iritis / Anterior Uveitis
Macular Degeneration (Age-Related / AMD)
Optic Neuritis
Periorbital and Orbital Cellulitis
Retinal Detachment
Retinopathy (Diabetic)
Scleritis

ENT (8)

Acoustic Neuroma
Benign Paroxysmal Positional Vertigo (BPPV)
Epistaxis (Nosebleed)
Infectious Mononucleosis (Glandular Fever)
Meniere's Disease
Otitis Externa (Swimmer's Ear)
Otitis Media (Acute)
Rhinosinusitis (Acute and Chronic)

Infection & Microbiology (16)

Candidiasis (Oral and Vaginal Thrush)
Chlamydia
Gonorrhoea
Herpes Simplex Virus (Genital)
Human Immunodeficiency Virus (HIV)
Asymptomatic phase for years. Late: severe weight loss, rare infections.
Human Papillomavirus Infection (Genital Warts)
Lyme Disease
Malaria
Measles
Mumps
Notifiable Diseases (Public Health)
Rubella (German Measles)
Surgical Site Infection
Syphilis
Trichomonas Vaginalis

Paediatrics (4)

Developmental Delay
Down's Syndrome (Trisomy 21)
Henoch-Schonlein Purpura (IgA Vasculitis)
Kawasaki Disease

Allergy & Immunology (3)

Allergic disorder
Hyposplenism / Splenectomy
Usually asymptomatic, but high risk of overwhelming severe infections.

Surgery & Vascular (1)

Gangrene

General Practice & Preventive Medicine (1)

Adverse drug effects

Acute & Emergency

16 conditions

Acute Coronary Syndromes (ACS)

HISTORY

Crushing central chest pain >15 mins at rest. Radiation to left arm/jaw. Nausea, sweating.

EXAMINATION

Pale, clammy. Abnormal heart rate/BP. Possible heart failure signs (crackles).

INVESTIGATIONS

BEDSIDE/GP: Immediate 12-lead ECG (ST elevation/depression, T-wave inversion). DEFINITIVE: Serial high-sensitivity Troponin, CXR, U&Es, Lipids.

TREATMENT

needed."

— : Aortic dissection (tearing pain to back, unequal pulses), Massive PE.

": A blocked heart blood vessel causing muscle damage. Emergency hospital"

DDx: Aortic Dissection, Pulmonary Embolism (PE), GORD/ Dyspepsia, Pericarditis. Pain is crushing, not 'tearing through to the back' (Dissection). Pain is not relieved by leaning forward (Pericarditis). Not relieved by antacids (GORD). Equal blood pressure in both arms and normal pulses (rules out dissection). No pericardial friction rub. ECG shows ST elevation/ depression (rules in ACS). Elevated Troponin confirms myocardial damage. Normal DDimer rules out PE. CT Aortogram rules out dissection.

Acute Kidney Injury (AKI)

HISTORY

Oliguria, dark urine, thirst, nausea. Recent sepsis, D&V, or new meds (NSAIDs, ACEi).

EXAMINATION

Dehydration (dry mucosa) OR Fluid overload (oedema). Palpable bladder.

INVESTIGATIONS

BEDSIDE/GP: Fluid balance. Urine dipstick (blood/protein). Bladder scan. DEFINITIVE: U&Es (rise in creatinine). Renal ultrasound if obstruction suspected.

TREATMENT

IV/oral fluids. Stop nephrotoxic drugs (NSAIDs, ACEi, diuretics). Treat cause (e.g., infection).

— : Urinary obstruction, rapidly progressive glomerulonephritis, hyperkalaemia.

": Kidneys temporarily struggling to filter blood due to dehydration or meds. Needs fluids and medication review."

DDx: Chronic Kidney Disease (CKD), Urinary Retention (post-renal), Sepsis (pre-renal). Sudden drop in urine output rather than chronic fatigue/polyuria. Ask about fluid intake/diarrhoea (prerenal). Absence of a palpable bladder (rules out lower tract obstruction). Check fluid status (hypovolaemia suggests pre-renal). Baseline creatinine from a few months ago was normal (confirms acute, rules out CKD). Renal ultrasound shows no hydronephrosis (rules out postrenal obstruction).

Acute Limb Ischaemia

HISTORY

of Atrial Fibrillation (embolus) or peripheral arterial disease (thrombosis).

EXAMINATION

The '6 Ps': Pain, Pallor, Pulselessness, Paraesthesia (numbness), Paralysis (weakness), Perishingly cold.

INVESTIGATIONS

BEDSIDE/ Immediate ABPI (usually unrecordable). Check for pulses using a handheld Doppler. BEDSIDE/GP: 12-lead ECG to look for AF. DEFINITIVE: Urgent CT Angiogram or formal lower limb angiography. Bloods (Group and Save, Coagulation, U&Es).

TREATMENT

Surgical Emergency. Immediate IV Heparin. Urgent vascular surgery referral for Embolectomy, Thrombolysis, or Bypass.

— : Paralysis or paraesthesia indicates severe, late-stage ischaemia with imminent muscle/nerve death. Requires intervention within 4-6 hours to save the limb.

": A sudden blockage of the blood supply to your leg, usually by a blood clot. The leg becomes cold, pale, and intensely painful. It is an emergency needing an operation to clear the clot and save the leg."

Acute Stress Reaction / PTSD

HISTORY

. Rule out substance misuse or underlying physical injury.

EXAMINATION

Visible distress, hypervigilance, tachycardia, diaphoresis when discussing the event.

INVESTIGATIONS

BEDSIDE/GP: Assess for risk of self-harm or suicide. Evaluate impact on daily functioning. DEFINITIVE: Clinical diagnosis based on psychiatric

TREATMENT

ASR: Watchful waiting, psychological first aid. PTSD: Trauma-focused CBT, Eye Movement Desensitisation and Reprocessing (EMDR). SSRIs (e.g., Sertraline) if therapies ineffective.

— : High risk of suicide or severe self-neglect. Dangerous impulsive behaviour or substance abuse to cope.

": A severe emotional reaction after a terrifying event. Acute stress reaction happens right away, while PTSD lasts for months or years, causing nightmares and flashbacks. Specific talking therapies are highly effective."

Anaphylaxis

HISTORY

Sudden symptoms after allergen exposure. Itching, difficulty breathing, feeling faint.

EXAMINATION

Stridor, wheeze, urticaria, angioedema. Hypotension, tachycardia.

INVESTIGATIONS

BEDSIDE/GP: ABCDE assessment. Monitor SpO2, BP, HR. DEFINITIVE: Mast cell tryptase blood test. Later: Allergy testing.

TREATMENT

Emergency: IM Adrenaline (1:1000). High-flow oxygen, IV fluids, Antihistamines.

— : Airway compromise (stridor), severe hypotension. Biphasic reaction.

": Severe allergic reaction affecting breathing and blood pressure. Requires immediate adrenaline."

DDx: Panic Attack/ Hyperventilation, Severe Asthma, Angioedema (nonallergic), Vasovagal Syncope. Rapid onset (minutes) after exposure to an allergen (e.g. nuts, stings). Stridor/Wheeze + Hypotension + Skin changes (hives/ angioedema). Syncopal faints do not have hives or wheeze. Clinical diagnosis requiring IM Adrenaline. Serial Mast Cell Tryptase levels (elevated) retrospectively confirm anaphylaxis.

Cardiac Arrest

HISTORY

Sudden collapse, unresponsive, not breathing or gasping (agonal breathing). Often caused by Myocardial Infarction, arrhythmias, hypoxia, or severe trauma.

EXAMINATION

Unresponsive. Absent central pulse (carotid). No signs of life.

INVESTIGATIONS

BEDSIDE/GP: IMMEDIATE assessment (Danger, Response, Airway, Breathing). DEFINITIVE: Attach defibrillator pads immediately to check rhythm: Shockable (Ventricular Fibrillation, Pulseless Ventricular Tachycardia) vs Non-shockable (Asystole, PEA).

TREATMENT

Immediate high-quality CPR (30 compressions: 2 breaths). Early defibrillation if shockable. IV Adrenaline & Amiodarone per ALS algorithm. Identify and treat reversible causes (4Hs and 4Ts).

— : Failure to recognise agonal breathing as cardiac arrest. Delays to starting CPR and defibrillation dramatically reduce survival.

": The heart has completely stopped pumping blood. Immediate chest compressions and an automated defibrillator (shock box) are needed to try and restart it."

Compartment Syndrome

HISTORY

Severe pain that is out of proportion to the injury (often a tibia/forearm fracture). Pain is unremitting and not relieved by strong opioids.

EXAMINATION

Pain on PASSIVE stretch of the muscles in that compartment is the most reliable early sign. The limb feels tense/wood-like. Late signs: Pulseless, pallor, paralysis, paraesthesia.

INVESTIGATIONS

BEDSIDE/GP: Palpate limb tension, passive stretch test. DEFINITIVE: Diagnosis is mostly clinical. Direct intra-compartmental pressure monitoring (>30 mmHg confirms diagnosis).

TREATMENT

Surgical emergency. Immediate removal of all restrictive casts/bandages. Urgent Fasciotomy (surgical release of the fascia) to relieve pressure.

— : Waiting for the '5 Ps' (Pulseless, Pallor, etc.) is dangerous—these are late signs of irreversible muscle and nerve death.

": Extreme swelling inside a muscle compartment after a break or crush injury. The pressure cuts off the blood supply. It requires an emergency operation to slice open the tough skin covering the muscle and relieve the pressure."

Drug Overdose (Paracetamol)

HISTORY

Intentional or accidental overdose. Often entirely asymptomatic in the first 24 hours. Later: nausea, vomiting, right upper quadrant pain, confusion (encephalopathy).

EXAMINATION

Early: normal. Late (Days 2-3): jaundice, hepatomegaly, asterixis (flapping tremor), coma.

INVESTIGATIONS

BEDSIDE/GP: Determine EXACT time of ingestion and total dose taken. DEFINITIVE: Paracetamol level (must be taken at least 4 hours post-ingestion). LFTs (massive rise in ALT/AST), Coagulation (rising PT/INR indicates liver failure), U&Es, Venous blood gas.

TREATMENT

line or if staggered/unknown time of overdose.

— : Arterial pH < 7.3, severely deranged PT, or encephalopathy indicates fulminant liver failure and requires urgent discussion with a liver transplant centre.

": An overdose of paracetamol is very dangerous because it silently destroys the liver over a few days. We must do a blood test and give a protective antidote drip quickly to save the liver."

DDx: E

Extradural Haemorrhage

HISTORY

of head trauma followed by a classic 'lucid interval' before rapid deterioration. Ipsilateral blown (dilated) pupil and contralateral hemiparesis. CT Head shows a BICONVEX (lemon-shaped) hyperdense bleed, ruling out Subdural (crescent-shaped) and SAH (blood in the basal cisterns). F

EXAMINATION

Falling GCS. Ipsilateral fixed dilated pupil (due to CN III compression). Contralateral hemiparesis.

INVESTIGATIONS

BEDSIDE/GP: Continuous GCS and pupillary assessment. DEFINITIVE: Urgent non-contrast CT Head: shows a classic 'biconvex' (lemon-shaped) hyperdense collection of blood, restricted by skull sutures.

TREATMENT

Neurosurgical emergency. Immediate craniotomy and evacuation of the haematoma. Ligation of the bleeding vessel (usually the middle meningeal artery).

— : The 'lucid interval' is dangerously deceptive. Any patient with a significant head injury who deteriorates after initially seeming well requires an immediate CT scan.

": A traumatic bleed between the skull and the brain covering, usually from a torn artery. Blood builds up quickly, squashing the brain. It requires immediate emergency surgery to drill a hole and drain the blood."

DDx: Subdural Haemorrhage, Subarachnoid Haemorrhage, Concussion, Diffuse Axonal Injury.

Multi-organ Dysfunction Syndrome (MODS)

HISTORY

A critically ill patient in ICU (usually due to severe sepsis, major trauma, or severe burns). Failure of 2 or more organ systems.

EXAMINATION

Hypotension (cardiovascular failure), hypoxia (respiratory failure/ARDS), anuria/oliguria (renal failure), jaundice (liver failure), altered GCS.

INVESTIGATIONS

BEDSIDE/GP: Continuous advanced ICU monitoring (arterial lines, central venous pressure). DEFINITIVE: ABG (severe hypoxia/acidosis), U&Es (AKI), LFTs, Coagulation (DIC), continuous lactate monitoring.

TREATMENT

of the underlying cause.

— : A terminal pathway of severe illness. Highly lethal even with maximum medical therapy.

": The most severe state of illness where the body's major organs (lungs, kidneys, heart, liver) all begin to shut down at the same time, usually due to massive infection or trauma. It requires life support machines in Intensive Care."

Necrotising Fasciitis

HISTORY

Recent minor skin trauma/surgery. Rapid onset of SEVERE, unremitting pain that is completely out of proportion to the visible skin changes. Fever, confusion.

EXAMINATION

Initially looks like simple cellulitis, but rapidly progresses to purple/black skin, blistering, and necrosis. Crepitus (crackling feeling under the skin due to gas). Patient is systemically toxic.

INVESTIGATIONS

BEDSIDE/GP: Immediate ABCDE and Sepsis 6. Assess pain out of proportion. DEFINITIVE: Clinical diagnosis. DO NOT delay surgery for imaging. Bloods: high WBC, CRP, Lactate. LRINEC score used to risk stratify.

TREATMENT

Absolute Surgical Emergency. Immediate, aggressive, radical surgical debridement of all dead tissue (often requiring amputation). High-dose broad-spectrum IV antibiotics.

— : The bacteria spread along the deep fascia (muscle lining) at an incredibly fast rate (inches per hour). Delays in surgery are fatal.

": The 'flesh-eating' bug. A terrifying, rapid bacterial infection deep under the skin that kills tissue within hours. The pain is extreme. The only way to stop it is emergency surgery to cut away all the infected flesh, combined with heavy IV antibiotics."

Respiratory Arrest

HISTORY

Patient has stopped breathing or is only gasping (agonal breathing). Often preceded by severe respiratory distress, choking, drug overdose (opiates), or head trauma.

EXAMINATION

Apnoea (no chest movement). Central cyanosis (blue lips/tongue). Unresponsive. Pulse MAY initially be present (unlike cardiac arrest) but will quickly disappear if oxygen is not restored.

INVESTIGATIONS

BEDSIDE/ Immediate ABCDE assessment. Look, listen, and feel for breathing for no more than BEDSIDE/GP: 10 seconds. DEFINITIVE: None acutely. Action is required immediately.

TREATMENT

Basic Life Support. Open the airway (head tilt/chin lift or jaw thrust). Give rescue breaths via a bag-valve-mask (BVM) attached to high-flow oxygen. Reverse causes (e.g., IV Naloxone for opiate overdose). Proceed to CPR if pulse is lost.

— : Failure to recognise and act immediately will result in hypoxic brain injury and secondary cardiac arrest within minutes.

": The patient has completely stopped breathing but their heart might still be beating. We must immediately open their airway and breathe for them using a special mask and oxygen bag, or they will go into full cardiac arrest."

Respiratory Failure

HISTORY

Profound breathlessness, agitation, confusion, morning headaches (in Type 2), bounding pulse, cyanosis. Hx of COPD, asthma, or opioid overdose.

EXAMINATION

Type 1 (Hypoxia only): Tachypnoea, cyanosis. Type 2 (Hypoxia + Hypercapnia): CO_2 retention flap (asterixis), bounding pulse, warm peripheries, drowsiness.

INVESTIGATIONS

BEDSIDE/GP: Vital signs (SpO_2, Respiratory Rate, Heart Rate). Immediate ABCDE. DEFINITIVE: Arterial Blood Gas (ABG) is diagnostic. Type 1: PaO_2 <8.0 kPa, $PaCO_2$ normal/low. Type 2: PaO_2 <8.0 kPa, $PaCO_2$ >6.0 kPa. Chest X-ray to find cause.

TREATMENT

Type 1: High-flow Oxygen (target SpO_2 94-98%). Type 2: Controlled Oxygen (target 88-92% until ABG known), Non-Invasive Ventilation (BiPAP), or intubation. Treat cause.

— : Falling respiratory rate and dropping GCS in an asthma or COPD patient signals imminent respiratory arrest.

": Your lungs are failing to get enough oxygen into your blood, and sometimes failing to clear the waste gas (carbon dioxide) out. This is an emergency needing oxygen and sometimes a breathing machine."

Sepsis

HISTORY

of recent infection.

EXAMINATION

Tachycardia (HR >90), Tachypnoea (RR >20), Hypotension (Systolic BP <100), altered mental state, mottled/ashen/cyanotic skin, prolonged capillary refill.

INVESTIGATIONS

BEDSIDE/ Calculate NEWS2 Score. Check ABCDE. Look for the source (chest, urine, skin, BEDSIDE/GP: abdomen). DEFINITIVE: Sepsis Six (Take 3, Give 3): Take blood cultures, lactate, and urine output. Give high-flow oxygen, IV antibiotics, and IV fluids.

TREATMENT

Immediate hospital admission. Broad-spectrum IV antibiotics within 1 hour. Aggressive IV fluid resuscitation (crystalloids). ICU support for vasopressors if shock persists.

— : Septic Shock: Profound hypotension not responding to IV fluids, requiring ICU admission and medication to squeeze the blood vessels.

": A life-threatening reaction to an infection. Instead of just fighting the bug, your immune system starts damaging your own organs. Requires emergency drips and antibiotics."

DDx: Anaphylaxis, Massive PE, Hypovolaemic Shock, Diabetic Ketoacidosis. Clear source of infection (UTI symptoms, cough, wound). National Early Warning Score (NEWS2) >5. Hypotension (SBP <90), altered mental state, and mottled skin. Lactate >2.0 mmol/L. Positive blood cultures. Neutrophilia and high CRP. Absence of wheeze/ hives rules out anaphylaxis.

Spinal Cord Compression

HISTORY

Sudden onset of high fever, vomiting, watery diarrhoea, severe muscle aches, and confusion. Often associated with retained tampons, recent surgery, or skin infections (Staph aureus or Strep pyogenes).

EXAMINATION

Profound hypotension (shock). A widespread, 'sunburn-like' macular rash. Strawberry tongue. Peeling of skin (desquamation) on palms and soles occurs 1-2 weeks later.

INVESTIGATIONS

BEDSIDE/GP: Immediate ABCDE. Remove any retained tampons/packings. DEFINITIVE: Bloods: Sepsis 6 (high WBC, CRP, Lactate, impaired renal/liver function). Blood cultures. Vaginal/wound swabs.

TREATMENT

Medical Emergency (ICU admission). Aggressive IV fluid resuscitation, Vasopressors for shock, broad-spectrum IV antibiotics (including Clindamycin to stop toxin production). Source control (remove tampon/debride wound).

— : Rapidly fatal multi-organ failure if not identified and treated aggressively with fluids and toxin-suppressing antibiotics.

": A rare, life-threatening reaction to toxins produced by certain bacteria. It causes shock, a sunburn-like rash, and organ failure. It requires emergency intensive care, massive fluid drips, and strong antibiotics."

DDx: Toxic Shock Syndrome

Transfusion Reactions

HISTORY

Occurs during or shortly after a blood transfusion. Fever, chills, back/flank pain (ABO incompatibility), breathlessness, hives/itching (allergic).

EXAMINATION

Fever, tachycardia, hypotension. Wheeze/stridor (anaphylaxis). Pulmonary oedema/ crackles if fluid overloaded (TACO).

INVESTIGATIONS

BEDSIDE/ IMMEDIATELY STOP THE TRANSFUSION. Keep the IV line open with normal saline. BEDSIDE/GP: Check the patient's ID band against the blood product label. DEFINITIVE: Send the blood unit back to the lab. Take blood from patient for Direct Antiglobulin Test (DAT/Coombs), repeat Group and Save, FBC, Coagulation, U&Es.

TREATMENT

s given."

— : Acute Haemolytic Transfusion Reaction (given wrong blood type) causes rapid shock, kidney failure, and DIC. This is a 'Never Event'.

": A severe reaction to receiving a blood transfusion. It can be a simple allergy, or a lifethreatening reaction if the blood type was wrong. The transfusion must be stopped instantly and emergency"

Cardiovascular

20 conditions

Aneurysms, ischaemic limb and occlusions

HISTORY

Sudden or chronic pain in the leg. Claudication (cramping pain in calf when walking, relieved by rest). Sudden cold, pale, painful, pulseless leg (acute ischaemia). Aneurysm may be asymptomatic or cause a pulsatile mass.

EXAMINATION

Absent or weak peripheral pulses. Bruits over arteries. Acute ischaemia: The 6 Ps (Pale, Pulseless, Painful, Paralysed, Paraesthetic, Perishingly cold).

INVESTIGATIONS

BEDSIDE/GP: Ankle-Brachial Pressure Index (ABPI). Handheld doppler to find pulses. DEFINITIVE: Arterial Duplex Ultrasound, CT Angiography or MR Angiography to locate the blockage or aneurysm.

TREATMENT

Acute occlusion: Emergency Heparin and surgical embolectomy/bypass. Claudication: Supervised exercise, Aspirin, Statin. Aneurysm: Surveillance or surgical repair.

— : Acute limb ischaemia is a surgical emergency with a 4-6 hour window to save the limb before irreversible muscle/nerve death occurs.

": Blockages or dangerous swellings (aneurysms) in your arteries. Blockages cause extreme pain because your leg isn't getting oxygen. An aneurysm is a bulge that risks bursting. Both require urgent vascular specialist care."

Aortic Aneurysm (Abdominal - AAA)

HISTORY

Often asymptomatic until rupture. Discovered incidentally on scans. If symptomatic: pulsatile feeling in abdomen, unexplained back or abdominal pain.

EXAMINATION

Expansile, pulsatile mass in the central/upper abdomen (above umbilicus).

INVESTIGATIONS

BEDSIDE/GP: Abdominal palpation. Check blood pressure. DEFINITIVE: Abdominal Ultrasound (diagnostic). CT Angiogram to plan surgery if size >5.5cm.

TREATMENT

Screening for men at 65. If <5.5cm: monitor with regular ultrasound. If >5.5cm, rapidly expanding, or symptomatic: Elective EVAR (Endovascular Aneurysm Repair) or open repair.

— : Ruptured AAA: Sudden severe tearing back/abdominal pain, pulsatile mass, and profound hypotension/shock. Surgical emergency (Call 999).

": A bulging or swelling in the main blood vessel running down your tummy. If it gets too large, it risks bursting, so we monitor it with scans and repair it if necessary."

Aortic Dissection

HISTORY

of uncontrolled hypertension or Marfan's syndrome.

EXAMINATION

Unequal blood pressures in the arms (>20mmHg difference). Radio-radial or radio-femoral pulse delay. Aortic regurgitation murmur. Signs of shock.

INVESTIGATIONS

BEDSIDE/GP: Measure BP in both arms. Immediate 12-lead ECG. DEFINITIVE: Urgent CT Angiogram of chest/abdomen/pelvis (shows false lumen). Chest X-ray (widened mediastinum).

TREATMENT

Type A (ascending aorta): Emergency open cardiac surgery. Type B (descending aorta): Strict medical management (IV beta-blockers like Labetalol to lower BP), sometimes endovascular stenting.

— : Cardiac tamponade (muffled heart sounds, raised JVP, hypotension), stroke, or limb ischaemia resulting from the dissection blocking branching arteries.

": A tear in the inner layer of the main artery from the heart. Blood rushes between the layers, causing extreme pain. This is a life-threatening emergency requiring urgent hospital care."

Aortic Valve Disease (Stenosis/Regurgitation)

HISTORY

Stenosis (SAD): Syncope (fainting on exertion), Angina, Dyspnoea. Regurgitation: Exertional breathlessness, palpitations.

EXAMINATION

Stenosis: Ejection systolic murmur radiating to carotids, slow-rising pulse, narrow pulse pressure. Regurgitation: Early diastolic murmur, collapsing pulse, wide pulse pressure.

INVESTIGATIONS

BEDSIDE/GP: 12-lead ECG (LVH signs), Blood pressure. DEFINITIVE: Echocardiogram (gold standard to assess valve area/gradient and ventricular function).

TREATMENT

Symptomatic severe stenosis: Surgical Aortic Valve Replacement (SAVR) or Transcatheter Aortic Valve Implantation (TAVI). Treat heart failure symptoms.

— : Onset of syncope or angina in aortic stenosis indicates very poor prognosis without urgent valve replacement.

": The main valve out of your heart is either too tight (stenosis) or leaky (regurgitation). When it causes symptoms like fainting or breathlessness, it usually needs replacing."

Arterial Thrombosis

HISTORY

Sudden onset limb pain, pallor, coldness, weakness. Risk factors: AF, recent MI, hypercoagulable state, peripheral vascular disease. Arterial thrombosis can cause stroke, MI, mesenteric ischaemia, or acute limb ischaemia.

EXAMINATION

The 6 Ps: Pale, Pulseless, Painful, Paralysed, Paraesthetic, Perishingly cold. Check for absent peripheral pulses (compare bilaterally). Auscultate heart for AF.

INVESTIGATIONS

BEDSIDE/GP: ECG (detect AF), Doppler USS of affected vessel. DEFINITIVE: CT Angiogram (defines occlusion site and extent). Bloods: FBC, Coagulation screen, U&Es, Group & Save. Thrombophilia screen if no clear cause.

TREATMENT

to restore blood flow and prevent permanent damage.

— : Irreversible limb ischaemia if not treated within 6 hours. Acute stroke or mesenteric ischaemia requires immediate specialist referral.

": A blood clot has blocked an artery, cutting off blood supply. This is an emergency requiring immediate"

Arterial Ulcers

HISTORY

of smoking, diabetes, peripheral arterial disease.

EXAMINATION

Punched-out appearance, deep, pale/necrotic base. Surrounding skin is cold, hairless, pale, and shiny. Weak or absent foot pulses.

INVESTIGATIONS

BEDSIDE/ Examine pulses. Ankle-Brachial Pressure Index (ABPI) <0.8 indicates arterial BEDSIDE/GP: disease. DEFINITIVE: Doppler ultrasound. CT or MR Angiography of lower limbs to assess extent of disease.

TREATMENT

DO NOT USE COMPRESSION BANDAGING. Refer to vascular surgery. Risk factor modification (stop smoking, Statins, Aspirin). Revascularisation (angioplasty/bypass).

— : Critical limb ischaemia (rest pain, gangrene, ABPI <0.5). High risk of amputation without urgent surgical intervention.

": A wound caused by poor blood supply carrying oxygen to the leg. They are very painful. We cannot use tight bandages; instead, we need to try and improve the blood flow, often with surgery."

Palpitations, SOB, syncope, fatigue. Often asymptomatic.

EXAMINATION

Irregularly irregular pulse. Variable volume.

INVESTIGATIONS

BEDSIDE/GP: 12-lead ECG (absent P waves, irregular QRS). BP check. DEFINITIVE: Echocardiogram. Bloods (TFTs, U&Es, Coagulation).

TREATMENT

Rate control (Beta-blocker/Diltiazem). Anticoagulation (DOAC) based on CHA2DS2-VASc score.

— : Haemodynamic instability (shock), acute heart failure, acute stroke signs.

": Irregular heart rhythm. We use meds to slow the rate and blood thinners to prevent strokes."

DDx: Supraventricular Tachycardia (SVT), Sinus Tachycardia, Ventricular Tachycardia, Flutter. Onset is often less abrupt than SVT. Ask about triggers like alcohol, thyroid symptoms, or chest infections. Pulse is 'irregularly irregular' without a repeating pattern (unlike premature ectopic beats which have a regular underlying rhythm). 12-lead ECG is diagnostic: ABSENT P-waves and an irregularly irregular ventricular rhythm. Echo rules out structural valve disease.

Congestive Heart Failure

HISTORY

Breathlessness on exertion, orthopnoea (breathless lying flat), paroxysmal nocturnal dyspnoea (waking up gasping), ankle swelling, fatigue.

EXAMINATION

Raised JVP, displaced apex beat, bibasal fine crackles, pitting peripheral oedema.

INVESTIGATIONS

BEDSIDE/GP: 12-lead ECG, Daily weight monitoring, Urine output. DEFINITIVE: Bloods: NT-proBNP (elevated). Echocardiogram confirms diagnosis and assesses Ejection Fraction.

TREATMENT

Symptomatic: Loop diuretics (Furosemide). Prognostic: ACE inhibitors, Beta-blockers, Spironolactone, SGLT2 inhibitors.

— : Acute pulmonary oedema (severe sudden breathlessness, pink frothy sputum) is a medical emergency.

": The heart has become too weak or stiff to pump blood around the body efficiently, leading to fluid building up in the lungs and legs."

DDx: COPD, Pulmonary Embolism, Renal Failure, Liver Cirrhosis. Orthopnoea (breathless lying flat) and Paroxysmal Nocturnal Dyspnoea (waking up gasping). No chronic cough/smoking heavily (COPD). Raised JVP, bilateral fine basal crackles, pitting ankle oedema, displaced apex beat. (Renal/Liver disease can cause oedema but not typically a displaced apex or severe orthopnoea). Elevated NT-proBNP. Echocardiogram confirms reduced Ejection Fraction. CXR shows cardiomegaly and Kerley B lines (rules out pure COPD).

Unilateral calf swelling, pain, warmth. Risks: surgery, immobility, cancer, COCP.

HISTORY

of a sudden 'pop' behind the knee during exercise (rules out Baker's cyst/muscle tear). Unilateral calf swelling >3cm. Mild erythema, but not the fiery, hot, sharply demarcated redness of cellulitis. Compression Duplex Ultrasound is gold standard and visualizes the clot. Negative ultrasound rules out DVT.

EXAMINATION

Unilateral calf swelling (>3cm difference), pitting oedema, tenderness.

INVESTIGATIONS

BEDSIDE/GP: Two-Level Wells Score. DEFINITIVE: Wells likely: proximal ultrasound. Wells unlikely: D-dimer (if +ve -> US).

TREATMENT

DOAC (Apixaban/Rivaroxaban) for 3-6 months.

— : Pulmonary embolism (SOB, pleuritic chest pain, haemoptysis).

": Blood clot in deep leg vein. Blood thinners stop it growing and moving to the lungs."

DDx: Cellulitis, Ruptured Baker's Cyst, Muscle Tear/Strain. Risk factors present (immobility, surgery, cancer). No

Infective Endocarditis

HISTORY

of IV drug use, poor dental hygiene, prosthetic heart valves, or congenital heart disease.

EXAMINATION

New/changing regurgitant murmur. Splinter haemorrhages in nails, Osler's nodes (painful finger nodules), Janeway lesions (painless palm macules), Roth spots (retina).

INVESTIGATIONS

BEDSIDE/GP: Vital signs (fever). Listen closely to the heart. DEFINITIVE: THREE sets of blood cultures taken from different sites at different times BEFORE starting antibiotics. Echocardiogram (Transoesophageal/TOE is most sensitive) to look for vegetations on valves.

TREATMENT

Prolonged IV antibiotics (4-6 weeks) based on culture results (e.g., Amoxicillin + Gentamicin initially). Cardiac surgery if valve is severely damaged or large vegetation.

— : Septic emboli breaking off the valve can cause strokes, limb ischaemia, or pulmonary emboli (if right-sided heart valves involved, e.g., in IV drug users).

": A life-threatening bacterial infection of the heart valves. Bacteria enter the blood and stick to the valves, growing into clumps that destroy the valve. Requires weeks of IV antibiotics in hospital."

Mitral Valve Disease (Stenosis/Regurgitation)

HISTORY

Stenosis (often from childhood Rheumatic Fever): Exertional breathlessness, orthopnoea, haemoptysis. Regurgitation (post-MI or prolapse): Breathlessness, fatigue, palpitations.

EXAMINATION

Stenosis: Malar flush, tapping apex beat, mid-diastolic rumble murmur. Regurgitation: Displaced apex beat, pan-systolic murmur radiating to the axilla. Both can cause Atrial Fibrillation.

INVESTIGATIONS

BEDSIDE/GP: 12-lead ECG (look for AF or 'P-mitrale' bifid P waves). DEFINITIVE: Echocardiogram is diagnostic to assess valve leaflets and heart chamber sizes. CXR (left atrial enlargement).

TREATMENT

Medical: Diuretics for heart failure symptoms, rate control/anticoagulation for AF. Surgical: Valve repair or replacement (TAVI is generally for Aortic, not Mitral).

— : Acute severe mitral regurgitation (e.g., papillary muscle rupture after a heart attack) causes rapid, flash pulmonary oedema and cardiogenic shock. Emergency surgery needed.

": The valve between the top and bottom chambers on the left side of the heart is either too stiff (stenosis) or leaks backwards (regurgitation). It leads to fluid backing up into your lungs. Fixing it often requires open-heart surgery."

Myocarditis / Pericarditis

HISTORY

Pericarditis: Sharp, pleuritic central chest pain, worse on lying flat, BETTER when leaning forward. Often follows a viral infection. Myocarditis: chest pain, breathless, palpitations.

EXAMINATION

Pericarditis: Pericardial friction rub (scratchy sound) on auscultation. Myocarditis: Tachycardia out of proportion to fever, signs of heart failure.

INVESTIGATIONS

BEDSIDE/ 12-lead ECG. Pericarditis shows widespread 'saddle-shaped' ST elevation and PR BEDSIDE/GP: depression. DEFINITIVE: Bloods: Troponin (often elevated), CRP/ESR. Echocardiogram (to check for pericardial effusion or impaired heart pumping).

TREATMENT

Pericarditis: NSAIDs (Ibuprofen) + Colchicine for weeks/months. Myocarditis: Supportive, treat heart failure (ACEi, beta-blockers).

— : Cardiac Tamponade (large pericardial effusion compressing the heart): muffled heart sounds, hypotension, raised JVP. Requires emergency pericardiocentesis.

": Inflammation of the heart muscle (myocarditis) or the sac around the heart (pericarditis), usually triggered by a virus. It causes chest pain that changes when you sit forward. Most recover well with anti-inflammatory painkillers."

DDx: N

Patient on Anticoagulant / Antiplatelet Therapy

HISTORY

Patient taking Warfarin, DOACs (Apixaban, Rivaroxaban), Aspirin, or Clopidogrel. Presenting with minor trauma, needing surgery, or signs of bleeding (bruising, epistaxis, melaena, haematuria).

EXAMINATION

Check for signs of significant bleeding/haemorrhage, shock (tachycardia, hypotension). Full neurological exam if head injury (risk of intracranial bleed).

INVESTIGATIONS

BEDSIDE/ Vital signs. Medication review. Assess indication for blood thinners (e.g., AF, BEDSIDE/GP: mechanical heart valve). DEFINITIVE: INR (crucial for Warfarin; normal target 2-3). FBC (check Hb), Coagulation screen, Renal function (U&Es affect DOAC clearance).

TREATMENT

Minor bleeding: local measures. Major bleeding: Stop anticoagulant. Warfarin reversal: IV Vitamin K and Prothrombin Complex Concentrate (Octaplex). DOAC reversal: Andexanet alfa (for Apixaban/Rivaroxaban) or Idarucizumab (for Dabigatran).

— : Any head injury in a patient on anticoagulants mandates an urgent CT Head, even if asymptomatic, due to the high risk of fatal intracranial haemorrhage.

": Patients on blood-thinning medications bleed much more easily. If they have a serious bleed or need an operation, we must temporarily stop the medication and sometimes give specific antidotes to help their blood clot normally again."

Peripheral Vascular Disease

HISTORY

Intermittent Claudication: cramping pain in the calf/thigh triggered by walking a set distance, relieved by rest.

Severe/late: Rest pain (worse at night, hanging foot out of bed relieves it).

EXAMINATION

Weak or absent pedal pulses. Cold, pale, hairless, shiny skin. Buerger's angle <20 degrees (leg goes pale when elevated, turns dusky red 'reactive hyperaemia' when lowered). Arterial ulcers on toes.

INVESTIGATIONS

BEDSIDE/ Palpate pulses. Ankle-Brachial Pressure Index (ABPI): 0.5-0.9 = claudication, <0.5 = critical limb ischaemia. BEDSIDE/GP: DEFINITIVE: Arterial Duplex Ultrasound. MR or CT Angiography to plan surgical intervention.

TREATMENT

First line: Stop smoking, supervised exercise program, Atorvastatin 80mg, Clopidogrel 75mg. Second line: Angioplasty/stenting or surgical bypass.

— : Critical Limb Ischaemia (CLI): Rest pain for >2 weeks, or tissue loss (ulcers/ gangrene) with an ABPI <0.5. High risk of amputation.

": The arteries carrying blood to your legs have become furred up and narrowed. It causes a severe cramping pain when you walk. Stopping smoking and taking cholesterol tablets are crucial to stop it progressing to gangrene."

Pulmonary Embolism (PE)

HISTORY

Sudden onset of dyspnoea (shortness of breath), pleuritic chest pain, cough, haemoptysis (coughing up blood). Risk factors: recent surgery, immobility, cancer, COCP, pregnancy.

EXAMINATION

Tachypnoea, tachycardia, hypoxia. May have signs of a DVT (unilateral swollen/tender calf). Right heart strain (raised JVP).

INVESTIGATIONS

BEDSIDE/Calculate Two-Level PE Wells Score. Vital signs (SpO2, HR). 12-lead ECG (often sinus BEDSIDE/GP: tachycardia; classic S1Q3T3 is rare). DEFINITIVE: Wells likely (>4): Urgent CTPA (CT Pulmonary Angiogram). Wells unlikely: D-dimer (if positive, then CTPA).

TREATMENT

Immediate DOAC (Apixaban or Rivaroxaban) whilst awaiting scans. If massive PE with hypotension (shock): Thrombolysis (Alteplase).

— : Massive PE causing right ventricular failure and cardiogenic shock. Requires emergency thrombolysis or surgical embolectomy.

": A blood clot has travelled to the blood vessels in your lungs, blocking the flow and causing sudden chest pain and shortness of breath. You need immediate blood-thinning medication."

DDx: Pneumothorax, Myocardial Infarction, Pneumonia, Anxiety/ Hyperventilation. Sudden onset SOB, pleuritic chest pain, and haemoptysis. Risk factors: Surgery, immobility, malignancy, or OC pill. Tachycardia, tachypnoea, and clear chest on auscultation (rules out pneumonia/HF). Signs of DVT. CT Pulmonary Angiogram (CTPA) is the gold standard. High Ddimer is sensitive but not specific; a negative D-dimer in low-risk patient (Wells score) rules out PE.

Pulmonary Hypertension

HISTORY

of chronic lung disease (COPD), recurrent PEs, or left heart failure.

EXAMINATION

Signs of Right Heart Failure (Cor Pulmonale): Raised JVP with prominent 'a' wave, right ventricular heave, loud P2 (second heart sound), peripheral oedema, hepatomegaly.

INVESTIGATIONS

BEDSIDE/ 12-lead ECG (shows Right Ventricular Hypertrophy, Right Axis Deviation). SpO2 BEDSIDE/GP: monitoring. DEFINITIVE: Echocardiogram (estimates pulmonary artery pressure). Right Heart Catheterisation is the gold standard diagnostic test. CTPA to rule out chronic thromboembolic disease.

TREATMENT

Treat underlying lung/heart disease. Long-term Oxygen Therapy (LTOT) if hypoxic. Specialist medications: Phosphodiesterase-5 inhibitors (Sildenafil), Endothelin receptor antagonists, Prostacyclins.

— : Syncope on exertion is a major red flag indicating the right heart is failing to pump enough blood through the stiff lungs to maintain brain perfusion.

": High blood pressure specifically in the blood vessels of your lungs. It makes the right side of your heart work extremely hard to push blood through, eventually causing the right heart to fail. Treated with oxygen and special blood vessel-opening tablets."

DDx: Secondary Hypertension (Conn's, Cushing's, Phaeochromocytoma, Renal Artery Stenosis), 'White Coat' Hypertension. No episodic headaches, sweating, and palpitations (rules out Phaeochromocytoma). No rapid weight gain or steroid use (Cushing's). No abdominal bruits (Renal Artery Stenosis). No moon face/striae (Cushing's). Ambulatory BP Monitoring (ABPM) confirms true hypertension and rules out 'White Coat' effect. Normal U&Es (potassium normal rules out Conn's syndrome).

Right Heart Valve Disease (Tricuspid/Pulmonary)

HISTORY

Sudden onset of focal neurological deficit. FAST symptoms: Facial droop, Arm weakness, Speech slurred/aphasia, Time to call 999. Hemiparesis, hemisensory loss, visual field loss.

EXAMINATION

Assess using NIHSS. Upper motor neuron signs: weakness, hyperreflexia, upgoing plantars. Homonymous hemianopia. Dysphasia/Dysarthria.

INVESTIGATIONS

BEDSIDE/ BM/Capillary blood glucose (to rule out hypoglycaemia, a classic stroke mimic). 12GP: lead ECG (to check for AF). DEFINITIVE: Urgent non-contrast CT Head (to rule out haemorrhage before giving blood thinners). CT Angiogram.

TREATMENT

is needed to limit brain damage."

— : Reduced consciousness (GCS <8) or signs of raised ICP (bradycardia/ hypertension) suggest massive swelling or brainstem involvement. Emergency intubation may be needed.

": A 'brain attack' where blood supply to part of the brain is cut off by a clot or a burst vessel. Immediate emergency hospital"

DDx: Stroke (Ischaemic and Haemorrhagic)

Transient Ischaemic Attack (TIA)

HISTORY

Sudden onset of focal neurological symptoms (speech loss, limb weakness, facial droop, visual loss/amaurosis fugax) that completely resolve within 24 hours.

EXAMINATION

is often completely NORMAL by the time they are seen (as symptoms have resolved). Check BP, listen for carotid bruits.

INVESTIGATIONS

BEDSIDE/GP: BM/Capillary glucose to rule out 'hypo'. 12-lead ECG to rule out Atrial Fibrillation. DEFINITIVE: MRI Brain (NOT CT) to look for small areas of ischaemia. Carotid Doppler ultrasound. 24h ECG/Holter monitor.

TREATMENT

Immediate Aspirin 300mg daily. Specialist TIA clinic review within 24 hours. Secondary prevention: Clopidogrel 75mg, high-dose Statin, BP control. Carotid endarterectomy if severe stenosis.

— : A TIA is a major warning sign for a full stroke in the coming days/weeks. Driving restrictions apply (must not drive for 1 month).

": A 'mini-stroke' where the blood supply to the brain is temporarily blocked, causing stroke symptoms that get better quickly. It is a major warning sign that a full stroke could happen soon."

DDx: Migraine with Aura, Hypoglycaemia, Syncope, Focal Seizure. Sudden focal neuro deficit that RESOLVES completely within 24 hours (usually <1 hour). Neurological exam is usually normal by the time of review. Check for carotid bruits and AF. Normal blood glucose (rules out hypo). MRI Head (DWI) can show small areas of infarction. Carotid Doppler rules in/out stenosis.

Varicose Veins, Venous Ulcers, & VTE

HISTORY

Varicose: aching, heavy legs with visible twisted veins. Venous ulcer: painless/mildly aching chronic wound on the inner ankle. VTE (DVT/PE): sudden unilateral painful swollen calf, or sudden breathlessness/pleuritic chest pain.

EXAMINATION

Varicose: Dilated superficial veins, brown skin staining. Ulcer: shallow, weeping wound above medial malleolus. DVT: Unilateral calf swelling >3cm difference. PE: tachycardia, hypoxia.

INVESTIGATIONS

BEDSIDE/GP: Venous disease: ABPI (to rule out arterial disease). VTE: Wells score, ECG. DEFINITIVE: Venous: Duplex ultrasound. DVT: Leg ultrasound. PE: CTPA or V/Q scan. D-Dimer if Wells score is unlikely.

TREATMENT

Varicose/Ulcers: Compression bandaging (if ABPI >0.8), vein ablation surgery. VTE: Anticoagulation (DOACs like Apixaban for 3-6 months).

— : Massive PE causing shock/hypotension (requires emergency thrombolysis). Putting tight compression bandages on a leg with poor arteries (ABPI <0.8) will cause gangrene.

": Problems with the veins returning blood to the heart. Faulty valves cause swollen varicose veins and chronic ankle ulcers, treated with compression and surgery. A blood clot in the vein (DVT/PE) is dangerous and needs blood thinners."

DDx: Deep Vein Thrombosis (DVT), Cellulitis, Peripheral Arterial Disease. Aching, heavy legs, worse after standing. Not sudden onset (rules out DVT). Dilated, tortuous superficial veins. Skin changes: venous eczema, haemosiderin staining, or ulcers. Tap test. Duplex Ultrasound (Gold Standard) confirms saphenofemoral/ saphenopopliteal reflux and rules out DVT.

Respiratory

28 conditions

Cough <3 weeks (clear/green sputum), mild SOB, wheeze, viral malaise.

EXAMINATION

Wheeze or coarse crackles clearing with cough. NO focal dullness/bronchial breathing.

INVESTIGATIONS

BEDSIDE/GP: Vital signs (CRB-65) to rule out pneumonia/sepsis. DEFINITIVE: None usually. Point-of-Care CRP if pneumonia suspected.

TREATMENT

Self-care (fluids, honey). No routine antibiotics. Amoxicillin only if systemically unwell/ high-risk.

— : Pneumonia (focal signs), PE (pleuritic pain/haemoptysis), Lung cancer (cough >3 wks).

": Viral inflammation of main airways. Antibiotics won't help. Clears in 3-4 weeks."

DDx: Pneumonia, Asthma exacerbation, COVID-19, Pulmonary Embolism. No chronic recurrent episodic wheeze (rules out asthma). No sudden pleuritic chest pain or haemoptysis (rules out PE). Chest is clear or has scattered wheeze/crackles that clear with coughing. NO focal dullness to percussion or bronchial breathing (rules out pneumonia). Normal Chest X-ray and low CRP (<20) effectively rules out pneumonia.

Asbestos-related lung disease

HISTORY

is crucial. Pulse oximetry. DEFINITIVE: Chest X-ray (pleural plaques, lower zone fibrosis). High Resolution CT (HRCT). Spirometry (restrictive pattern).

EXAMINATION

Fine end-inspiratory crackles, finger clubbing (in asbestosis). Signs of pleural effusion (dull percussion, reduced breath sounds).

INVESTIGATIONS

BEDSIDE/GP: Detailed occupational

TREATMENT

. Symptomatic relief, smoking cessation (smoking + asbestos massively increases lung cancer risk). Industrial injuries compensation claims.

— : Mesothelioma (pleural cancer): unilateral chest pain, massive recurrent pleural effusion, weight loss.

": Lung scarring caused by breathing in asbestos dust many years ago. It makes lungs stiff and causes breathlessness. There is no cure, but we monitor for complications like lung cancer."

Asthma

HISTORY

(rules out COPD). No orthopnoea/PND (rules out heart failure). Widespread polyphonic wheeze, no fine basal crackles (rules out heart failure). No finger clubbing (rules out bronchiectasis). Spirometry demonstrates REVERSIBILITY with a bronchodilator (FEV1 improves >12%), which definitively distinguishes it from COPD. Normal CXR.

EXAMINATION

Polyphonic widespread expiratory wheeze. Severe: tachypnoea, silent chest.

INVESTIGATIONS

BEDSIDE/GP: Peak Expiratory Flow Rate (PEFR). SpO2. DEFINITIVE: Spirometry (obstructive, reversible). FeNO test.

TREATMENT

SABA (Salbutamol) PRN + ICS (Preventer). Step up: LABA/LTRA. Acute: O2, Nebulisers, Prednisolone.

— : Life-threatening: Silent chest, cyanosis, exhaustion, SpO2 < 92%.

": Sensitive airways that narrow. Preventer inhalers stop inflammation; relievers open airways during attacks."

DDx: COPD, Heart Failure, Bronchiectasis, Vocal Cord Dysfunction. Young age of onset, atopy (eczema/hayfever), symptom variability. Minimal/no smoking

Bronchiectasis

HISTORY

Chronic daily cough with large amounts of thick, purulent sputum. Recurrent chest infections. Occasional haemoptysis.

EXAMINATION

Coarse inspiratory crackles (often bibasal). Finger clubbing in severe/chronic cases.

INVESTIGATIONS

BEDSIDE/ Sputum culture and sensitivities (often colonised with Pseudomonas or BEDSIDE/GP: Haemophilus). DEFINITIVE: High-Resolution CT (HRCT) of the chest shows widened airways ('signet ring' sign).

TREATMENT

Daily chest physiotherapy (airway clearance). Prompt antibiotics for exacerbations. Bronchodilators.

— : Massive haemoptysis (coughing up large amounts of blood) requires emergency embolization.

": Long-term lung condition where the airways are abnormally widened, leading to a build-up of excess mucus and frequent infections."

Bronchiolitis

HISTORY

Infant (typically <1 year old). 1-3 days of coryza (runny nose) followed by a dry cough, rapid breathing, and difficulty feeding. Often caused by RSV in winter.

EXAMINATION

Tachypnoea, subcostal/intercostal recession, tracheal tug, nasal flaring. Widespread fine crackles and wheeze on auscultation.

INVESTIGATIONS

BEDSIDE/GP: Check SpO2 (hypoxia). Observe a feed (assess for poor feeding/fatigue). DEFINITIVE: Clinical diagnosis. Nasopharyngeal aspirate for RSV PCR if admitted. CXR rarely needed unless atypical.

TREATMENT

Supportive: Nasal saline drops, small frequent feeds or NG tube feeding, Oxygen via high- flow nasal cannula (Optiflow) if SpO2 <92%. Bronchodilators/steroids DO NOT WORK.

— : Apnoeas (stopping breathing) in very young/premature babies. Severe respiratory distress or feeding <50% of normal requires hospital admission.

": A very common winter virus causing inflammation in the tiniest airways of a baby's lungs. It causes fast breathing and coughing. Since it's viral, inhalers and antibiotics don't work; we just support their breathing and feeding until the virus passes."

Chronic Obstructive Pulmonary Disease (COPD)

HISTORY

. Progressive, persistent breathlessness (not highly variable like asthma). Hyperinflated 'barrel' chest, pursed-lip breathing. Clubbing is ABSENT (if present, investigate for Lung Cancer or Bronchiectasis). Spirometry confirms an OBSTRUCTIVE defect (FEV1/FVC <0.7) with NO significant reversibility after salbutamol (rules out asthma). CXR shows hyperinflation, no masses.

EXAMINATION

Barrel chest, pursed-lip breathing, prolonged expiration, wheeze, cyanosis.

INVESTIGATIONS

BEDSIDE/GP: SpO2 (chronically 88-92%). BMI. DEFINITIVE: Spirometry (FEV1/FVC < 0.70 post-bronchodilator). CXR.

TREATMENT

Stop smoking. Vaccines. Inhalers (SABA/SAMA -> LAMA/LABA -> ICS). Pulmonary rehab.

— : Haemoptysis, weight loss (Lung cancer). Cor pulmonale (right heart failure).

": Lung damage from smoking trapping air. Inhalers help open airways but cannot reverse damage."

DDx: Asthma, Lung Cancer, Bronchiectasis, Heart Failure. Older age (>35), significant smoking

COVID-19

HISTORY

Fever, new continuous cough, loss of/change in sense of smell or taste (anosmia). Shortness of breath, fatigue, myalgia.

Can progress to severe respiratory failure.

EXAMINATION

Fever, tachypnoea, hypoxia. Bilateral widespread crackles.

INVESTIGATIONS

BEDSIDE/ Pulse oximetry (monitor for 'silent hypoxia' where patient feels okay despite very BEDSIDE/GP: low SpO2). DEFINITIVE: PCR swab or rapid antigen test. CXR: bilateral ground-glass opacities. Bloods: lymphopenia, high CRP, high D-dimer.

TREATMENT

s."

— : Significant oxygen desaturation on exertion. Development of pulmonary embolism.

": A viral infection causing anything from mild cold symptoms to severe pneumonia. In severe cases, it causes dangerous drops in oxygen requiring hospital oxygen and steroid"

Croup (Laryngotracheobronchitis)

HISTORY

Child (typically 6 months - 3 years). Coryzal symptoms (runny nose) followed by a characteristic harsh 'barking' seal-like cough, hoarse voice, and stridor. Worse at night.

EXAMINATION

Inspiratory stridor (high-pitched noise breathing in), barking cough. Assess for respiratory distress (chest recession, tracheal tug, tachypnoea).

INVESTIGATIONS

BEDSIDE/GP: Calculate Westley Croup Score. Check SpO2. DEFINITIVE: Clinical diagnosis. NO Throat Swabs/blood tests (distressing a child with severe croup can cause complete airway obstruction).

TREATMENT

Mild/Mod/Severe: Single dose of oral Dexamethasone (0.15mg/kg). Severe/Life-threatening: Oxygen, Nebulised Adrenaline, PICU admission.

— : Drooling, toxic appearance, no cough, high fever (Points to Epiglottitis - DO NOT examine throat, call an anaesthetist!).

": A common childhood viral infection of the voice box and windpipe. It causes a distinct 'barking' cough. A single dose of steroid medicine helps reduce the swelling in their throat."

Cystic Fibrosis

HISTORY

Usually diagnosed at birth via heel prick. Recurrent severe chest infections, chronic productive cough, faltering growth (failure to thrive), loose/oily stools (steatorrhoea).

EXAMINATION

Finger clubbing, hyperinflated chest, coarse crepitations/wheeze. Signs of malnutrition.

INVESTIGATIONS

BEDSIDE/GP: Newborn blood spot screening (immunoreactive trypsinogen). DEFINITIVE: Sweat Test (gold standard: high sweat chloride >60mmol/L). Genetic testing for CFTR mutations (most common is delta-F508).

TREATMENT

MDT care. Chest physiotherapy, prophylactic antibiotics, bronchodilators, Creon (pancreatic enzyme replacement) with meals. CFTR modulators (e.g., Kaftrio).

— : Massive haemoptysis, pneumothorax, severe exacerbations requiring IV antibiotics (Pseudomonas infections).

": A genetic condition that makes the body's mucus extremely thick and sticky. This blocks the lungs (causing infections) and the pancreas (causing digestive problems). It requires daily intensive therapies."

DDx: D

Epiglottitis

HISTORY

Child (now rarer due to Hib vaccine) or adult. Rapid onset of high fever, severe sore throat, difficulty swallowing (dysphagia), and muffled voice.

EXAMINATION

Patient appears toxic, drooling saliva, sitting forward with neck extended ('tripod' position). Inspiratory stridor.

INVESTIGATIONS

should delay airway management. Done by anaesthetists in theatre.

TREATMENT

Medical Emergency. Secure airway in theatre (intubation) by senior anaesthetist/ENT. IV antibiotics (e.g., Ceftriaxone) and IV Dexamethasone.

— : Examining the throat with a tongue depressor or making the child cry can cause complete, sudden airway obstruction and death.

": A severe bacterial infection causing the flap at the back of the throat to swell massively. It can block the airway completely. It requires an emergency doctor to safely secure a breathing tube."

DDx: Croup, Foreign Body Aspiration, Anaphylaxis, Peritonsillar Abscess (Quinsy). Rapid onset high fever, drooling, NO cough. (Croup has a classic barking cough and slower onset). Toxic-looking child in a tripod position. DO NOT examine the throat (can cause fatal airway obstruction). Direct visualization during intubation in theatre confirms the swollen, cherry-red epiglottis. Avoid X-rays if it delays airway management.

Fibrosis)

HISTORY

Older patient (>60). Chronic, progressive, worsening breathlessness on exertion and a persistent dry cough. No wheeze.

May have a history of smoking.

EXAMINATION

Fine, end-inspiratory 'Velcro-like' crackles at the lung bases. Finger clubbing is prominent.

INVESTIGATIONS

BEDSIDE/GP: SpO2 (may desaturate significantly on exertion). DEFINITIVE: High-Resolution CT (HRCT) of the chest is gold standard (shows 'honeycombing' and traction bronchiectasis at the lung bases). Spirometry shows a restrictive defect.

TREATMENT

No cure. Antifibrotic medications (Pirfenidone, Nintedanib) can slow progression. Pulmonary rehabilitation, long-term oxygen therapy. Lung transplant in highly selected patients.

— : Progressive rapid decline in lung function leading to Type 1 Respiratory Failure. Very poor overall prognosis (often 3-5 years).

": Severe, progressive scarring of the lung tissue for unknown reasons. The lungs become stiff, making it hard to breathe in. There is no cure, but special tablets can slow down the scarring."

Influenza (The Flu)

HISTORY

Abrupt onset of high fever, severe myalgia (muscle aches), extreme exhaustion, dry cough, headache, sore throat.

Outbreaks typically occur in winter.

EXAMINATION

Fever, tachycardia. Chest is usually clear on auscultation (unless secondary pneumonia has developed). Patient looks miserable.

INVESTIGATIONS

BEDSIDE/GP: Check SpO2. Temperature. DEFINITIVE: Usually a clinical diagnosis during outbreaks. Viral throat/nose swab for PCR if admitted to hospital.

TREATMENT

Healthy adults: rest, fluids, Paracetamol. At-risk groups (elderly, pregnant, immunocompromised): oral Oseltamivir (Tamiflu) if started within 48 hours of symptom onset.

— : Secondary bacterial pneumonia (e.g., Staph aureus) causing worsening cough, purulent sputum, and hypoxia after initial flu symptoms had started to improve.

": A severe viral illness that hits you suddenly with a high fever and extreme body aches. It is much worse than a common cold. The annual flu vaccine is the best way to prevent it."

Acute cough, purulent sputum, fever, breathlessness, chest discomfort.

EXAMINATION

Wheeze or crackles on chest auscultation. Fever, tachypnoea.

INVESTIGATIONS

BEDSIDE/GP: SpO2, Respiratory Rate, CRB-65 score. DEFINITIVE: Chest X-ray if pneumonia suspected. Point-of-Care CRP (if >100, antibiotics indicated).

TREATMENT

Amoxicillin or Doxycycline if bacterial/pneumonia suspected. Self-care if acute bronchitis.

— : Sepsis, severe hypoxia (SpO2 <92%).

": An infection deep in the lungs. It can be a simple chest infection (bronchitis) or pneumonia. Treated with antibiotics if bacterial."

Lung Cancer

HISTORY

. SpO2. DEFINITIVE: Urgent Chest X-ray (may show a mass or effusion). If abnormal or high suspicion -> Urgent 2-week-wait CT Chest. Bronchoscopy/biopsy for tissue diagnosis.

EXAMINATION

Often normal early on. Finger clubbing, cervical/supraclavicular lymphadenopathy. Signs of pleural effusion (dull percussion, reduced breath sounds). Cachexia.

INVESTIGATIONS

BEDSIDE/GP: Assess smoking

TREATMENT

s like surgery or chemotherapy."

— : Superior Vena Cava (SVC) Obstruction: Facial/neck swelling, engorged neck/ chest veins, breathless when lying flat. An oncological emergency.

": A serious cancer in the lungs, strongly linked to smoking. It often causes a persistent cough or coughing up blood. We need urgent scans to see the lungs and a biopsy to decide on"

DDx: Pneumonia, Tuberculosis, COPD exacerbation, Sarcoidosis. Persistent cough >3 weeks, haemoptysis, and weight loss in a smoker. Pneumonia symptoms are acute and associated with high fever. Finger clubbing or a fixed monophonic wheeze (suggests localized obstruction). Supraclavicular lymphadenopathy. CXR showing a non-resolving mass. CT Chest/Abdomen is the definitive imaging tool. Bronchoscopy/Biopsy confirms histology and rules out benign infection.

Mesothelioma

HISTORY

. DEFINITIVE: Chest X-ray (large unilateral pleural effusion, pleural thickening). CT Chest. Pleural aspiration (often blood-stained fluid). Thoracoscopy and pleural biopsy (diagnostic).

EXAMINATION

Signs of a unilateral pleural effusion (stony dull percussion, reduced breath sounds, reduced chest expansion). Finger clubbing.

INVESTIGATIONS

BEDSIDE/GP: Detailed occupational

TREATMENT

focuses on easing breathlessness rather than curing."

— : Prognosis is extremely poor (often <12 months). The disease is incurable.

": A cancer of the lining of the lung (the pleura), almost always caused by breathing in asbestos dust many years ago. It causes fluid to build up around the lung."

Obstructive Sleep Apnoea

HISTORY

of falling asleep while driving. The patient MUST be advised to stop driving and inform the DVLA until the condition is controlled.

EXAMINATION

Obesity (especially thick neck >43cm). Enlarged tonsils, crowded oropharynx.

INVESTIGATIONS

BEDSIDE/ Epworth Sleepiness Scale questionnaire. STOP-BANG questionnaire. Check BMI and BEDSIDE/GP: blood pressure. DEFINITIVE: Overnight polysomnography (Sleep Study) or home oximetry looking for recurrent desaturations during the night.

TREATMENT

Weight loss, smoking cessation, avoid alcohol before bed. Gold standard: Continuous Positive Airway Pressure (CPAP) machine worn at night. Mandibular advancement devices.

— : Severe daytime sleepiness with a

": The muscles in your throat relax too much during sleep, blocking your airway. You stop breathing briefly and wake up slightly to gasp for air, ruining your sleep quality. Weight loss and a CPAP breathing mask keep the airway open."

Occupational Lung Disease (Silicosis/Coal Worker's)

HISTORY

. DEFINITIVE: Chest X-ray: Silicosis shows 'eggshell calcification' of hilar lymph nodes and upper zone nodular opacities. Spirometry (restrictive pattern).

EXAMINATION

Usually unremarkable early on. Late: signs of cor pulmonale (right heart failure).

INVESTIGATIONS

BEDSIDE/GP: Detailed occupational

TREATMENT

No cure. Avoid further exposure. Industrial compensation. Symptomatic relief (bronchodilators, oxygen).

— : Silicosis massively increases the risk of developing Tuberculosis (Silicotuberculosis). Always investigate a new fever or weight loss.

": Lung scarring caused by breathing in silica or coal dust over many years at work. The dust causes hard nodules to form in the lungs. There is no cure, so preventing exposure with masks at work is the only defence."

Pleural Effusion

HISTORY

Progressive breathlessness, pleuritic chest pain (if inflammatory), dry cough. Risk factors depend on cause: heart failure, pneumonia, cancer, or liver disease.

EXAMINATION

Stony dull percussion note over the effusion. Reduced or absent breath sounds and reduced vocal resonance on the affected side. Reduced chest expansion.

INVESTIGATIONS

BEDSIDE/GP: SpO2 monitoring. Assess for signs of heart failure (e.g., pitting oedema, raised JVP). DEFINITIVE: Erect Chest X-ray (blunting of the costophrenic angle, dense white shadow with a meniscus). Diagnostic pleural tap (aspiration) using ultrasound guidance to determine if it is a transudate or exudate (Light's criteria).

TREATMENT

Treat the underlying cause (e.g., diuretics for heart failure, antibiotics for infection). Therapeutic aspiration or chest drain insertion if the patient is severely breathless.

— : Empyema (pus in the pleural space): persistent fever, raised inflammatory markers despite antibiotics. Requires urgent drainage.

": Fluid has built up in the space between your lung and your ribcage, squashing the lung and making it hard to breathe. We diagnose it with an X-ray and sometimes drain the fluid with a small needle to help you breathe and find out what caused it."

Pneumonia

HISTORY

High fever, productive cough (rusty/green sputum), pleuritic chest pain, breathlessness, confusion in the elderly.

EXAMINATION

Focal coarse crackles, bronchial breathing, dullness to percussion over the infected lobe.

INVESTIGATIONS

BEDSIDE/GP: CRB-65 score to decide admission. DEFINITIVE: Chest X-ray shows focal consolidation. Sputum cultures. Blood cultures if severe.

TREATMENT

Amoxicillin (mild community). Co-amoxiclav + Clarithromycin IV (severe hospital). Oxygen.

— : CRB-65 > 2 requires urgent hospital admission. Hypoxia, sepsis.

": A serious bacterial lung infection where air sacs fill with fluid. Causes severe cough and fever. Needs strong antibiotics to clear."

DDx: Pulmonary Embolism (PE), Acute Bronchitis, Congestive Heart Failure, Lung Cancer. Fever, rigors, and productive cough with purulent sputum. PE typically has sudden onset pleuritic pain and haemoptysis without prodromal fever. Focal signs: Bronchial breathing, dullness to percussion, and increased vocal resonance. (Bronchitis has no focal signs; Heart failure has bilateral crackles). CXR shows new focal consolidation. CRP >100 strongly suggests pneumonia over bronchitis.

Pneumothorax

HISTORY

Sudden onset of unilateral, sharp, pleuritic chest pain and breathlessness. Spontaneous: tall, thin, young men.

Secondary: patients with underlying lung disease (COPD/Asthma).

EXAMINATION

Reduced chest expansion on affected side. Hyper-resonant percussion note. Reduced or absent breath sounds on the affected side.

INVESTIGATIONS

BEDSIDE/GP: SpO2, Respiratory Rate, Blood Pressure. DEFINITIVE: Erect Chest X-ray (shows absent lung markings and a visible pleural edge). Ultrasound (if trained/in A&E).

TREATMENT

Primary <2cm and no SOB: Discharge & review. Primary >2cm or SOB: Needle aspiration. Secondary or failed aspiration: Chest drain insertion. High-flow oxygen.

— : Tension Pneumothorax: Severe respiratory distress, tracheal deviation AWAY from the affected side, hypotension. EMERGENCY: requires immediate needle decompression before CXR.

": A 'collapsed lung'. Air escapes from the lung and gets trapped in the chest cavity, squashing the lung. Small ones heal themselves; larger ones need a needle or tube to suck the air out."

DDx: Pulmonary Embolism, Myocardial Infarction, Tension Pneumothorax, Pleurisy. Sudden onset unilateral pleuritic chest pain and breathlessness. Tall, thin young men (primary) or underlying lung disease (secondary). Reduced breath sounds and hyper-resonance on the affected side. Deviated trachea and hypotension rule in a 'Tension' emergency. Expiratory CXR shows a visible edge of the pleura with absence of lung markings peripherally.

Sarcoidosis

HISTORY

Often asymptomatic (incidental finding on CXR). Dry cough, progressive breathlessness, fatigue, joint pain, painful red lumps on shins (Erythema Nodosum). More common in AfroCaribbean patients.

EXAMINATION

Erythema Nodosum on legs. Lupus pernio (purple rash on nose/cheeks). May have crackles in lungs, lymphadenopathy, or uveitis (red eye).

INVESTIGATIONS

BEDSIDE/ Check calcium levels (sarcoid granulomas produce active Vitamin D, causing BEDSIDE/GP: hypercalcaemia). DEFINITIVE: Chest X-ray (Bilateral Hilar Lymphadenopathy - BHL). High-resolution CT chest. Tissue biopsy (e.g., lymph node) showing NON-caseating granulomas. High serum ACE levels.

TREATMENT

(often spontaneously resolves). Symptomatic/ progressive disease: Oral Corticosteroids (Prednisolone) for 6-24 months. Methotrexate if steroid-sparing needed.

— : Cardiac sarcoidosis (causing fatal arrhythmias/heart block) or neurosarcoidosis (nerve palsies/seizures).

": An immune system disorder that causes tiny clumps of inflammatory cells (granulomas) to form in organs, most commonly the lungs and lymph nodes. It often goes away on its own, but severe cases need steroid tablets to protect the organs."

Sleep Disorders (Obstructive Sleep Apnoea)

HISTORY

of falling asleep while driving. The patient MUST be advised to stop driving and inform the DVLA until the condition is controlled.

EXAMINATION

Obesity (especially thick neck >43cm). Enlarged tonsils, crowded oropharynx.

INVESTIGATIONS

BEDSIDE/ Epworth Sleepiness Scale questionnaire. STOP-BANG questionnaire. Check BMI and BEDSIDE/GP: blood pressure. DEFINITIVE: Overnight polysomnography (Sleep Study) or home oximetry looking for recurrent desaturations during the night.

TREATMENT

Weight loss, smoking cessation, avoid alcohol before bed. Gold standard: Continuous Positive Airway Pressure (CPAP) machine worn at night. Mandibular advancement devices.

— : Severe daytime sleepiness with a

": The muscles in your throat relax too much during sleep, blocking your airway. You stop breathing briefly and wake up slightly to gasp for air, ruining your sleep quality. Weight loss and a CPAP breathing mask keep the airway open."

Tuberculosis (TB)

HISTORY

Chronic cough (>3 weeks), haemoptysis (coughing blood), severe night sweats (drenching the bed), unexplained weight loss, lethargy. Hx of travel/birth in endemic area or immunosuppression.

EXAMINATION

Often normal. May have crackles/bronchial breathing at lung apices. Cervical lymphadenopathy. Clubbing (late).

INVESTIGATIONS

BEDSIDE/GP: Isolate the patient (negative pressure room) if infectious TB suspected. DEFINITIVE: Chest X-ray (upper lobe cavitation/consolidation). Sputum for Acid Fast Bacilli (AFB) smear and culture x 3 (including early morning sample). IGRA / Mantoux test for latent TB.

TREATMENT

Notification to Public Health. 6 months combination antibiotics (Rifampicin, Isoniazid, Pyrazinamide, Ethambutol for 2 months, then R+I for 4 months). Direct Observation Therapy (DOTs).

— : Rifampicin causes orange tears/urine. Isoniazid causes peripheral neuropathy (give Pyridoxine/Vit B6). Miliary TB (widespread dissemination in blood) is life-threatening.

": A bacterial infection that usually affects the lungs, causing a long-term bloody cough, weight loss, and extreme night sweats. Needs 6 months of strong combination antibiotics to cure completely."

DDx: Lung Cancer, Sarcoidosis, Pneumonia, Lymphoma. Chronic cough, night sweats, weight loss, and travel to/origin from endemic areas. Symptoms last months, unlike acute pneumonia. Dullness at lung apices, lymphadenopathy, and cachexia. CXR shows apical cavitary lesions. Sputum smear for AcidFast Bacilli (AFB) and IGRA/ Mantoux test rule in TB and rule out cancer/sarcoid.

Upper Respiratory Tract Infection (URTI) & Tonsillitis

HISTORY

URTI: Runny nose, sneezing, mild cough, low-grade fever. Tonsillitis: Severe sore throat, painful swallowing, high fever, swollen neck glands. No cough in bacterial tonsillitis.

EXAMINATION

Tonsillitis: Red, swollen tonsils covered in white pus (exudate). Tender cervical lymph nodes. URTI: congested nasal passages, clear chest.

INVESTIGATIONS

BEDSIDE/ Calculate Centor or FeverPAIN score for tonsillitis to determine if it is likely BEDSIDE/GP: bacterial. DEFINITIVE: Usually clinical. Throat swab only if recurrent or atypical.

TREATMENT

URTI: Supportive (fluids, Paracetamol). Tonsillitis: Phenoxymethylpenicillin (Penicillin V) for 10 days if Centor score 3-4 (bacterial). Tonsillectomy if recurrent (>7 times a year).

— : Quinsy (Peritonsillar abscess): Severe unilateral throat pain, muffled 'hot potato' voice, deviation of the uvula. Requires urgent ENT admission for needle aspiration and IV antibiotics.

": Common colds and sore throats. Most are viral and just need rest and painkillers. If the tonsils are covered in white pus and there is no cough, it might be bacterial and need a course of penicillin."

Gastroenterology & Hepatology

43 conditions

Acid-base abnormality

HISTORY

Symptoms of underlying cause (e.g. vomiting for alkalosis, D&V/sepsis for acidosis, COPD for resp acidosis). Confusion, breathlessness.

EXAMINATION

Kussmaul breathing (metabolic acidosis), hypoventilation (metabolic alkalosis). Check fluid status and GCS.

INVESTIGATIONS

BEDSIDE/GP: Vital signs, SpO2. DEFINITIVE: Arterial or Venous Blood Gas (ABG/VBG), U&Es (for anion gap), Glucose/Ketones.

TREATMENT

Treat underlying cause (e.g. insulin for DKA, IV fluids for dehydration, BiPAP for COPD type 2 resp failure).

— : Severe acidaemia (pH < 7.1) causing cardiac arrhythmias and shock.

": The blood's pH balance is off due to another illness like a kidney problem or breathing issue. We find and treat the root cause."

RUQ pain, high fever/rigors, and jaundice (Charcot's Triad). Dark urine.

EXAMINATION

Fever, scleral icterus, RUQ tenderness. Confusion/hypotension if severe.

INVESTIGATIONS

BEDSIDE/GP: Vital signs (sepsis check). Urine dipstick. DEFINITIVE: LFTs (obstructive), FBC, CRP. Ultrasound abdomen. ERCP.

TREATMENT

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— : Septic shock (hypotension, tachycardia, altered mental state).

": Serious bile duct infection, usually from a trapped gallstone. Urgent hospital"

Acute Pancreatitis

HISTORY

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EXAMINATION

Epigastric tenderness. Tachycardia. Rare: Bruising around umbilicus.

INVESTIGATIONS

BEDSIDE/GP: Vital signs (assess for shock). DEFINITIVE: Serum Amylase/Lipase (>3x normal). Ultrasound (gallstones). CT Abdomen.

TREATMENT

Hospital admission. Nil by mouth, IV fluids, strong analgesia.

— : Hypovolaemic shock, ARDS (severe shortness of breath).

": Severe pancreas inflammation. Needs hospital admission for fluids and pain relief."

Alcoholic hepatitis

HISTORY

Heavy alcohol use. Rapid onset of jaundice, malaise, fever, right upper quadrant pain, anorexia.

EXAMINATION

Jaundice, tender hepatomegaly (enlarged liver), fever, ascites. Stigmata of chronic liver disease may be present.

INVESTIGATIONS

BEDSIDE/GP: Assess for alcohol withdrawal risk (CIWA score). DEFINITIVE: LFTs (AST > ALT, usually 2:1 ratio). FBC (macrocytosis, high WBC). Coagulation (prolonged PT). Ultrasound abdomen.

TREATMENT

."

— : Hepatic encephalopathy (confusion), severe bleeding (varices), hepatorenal syndrome.

": Severe inflammation of the liver caused by heavy drinking. It causes yellowing of the skin and requires immediate cessation of alcohol and sometimes hospital"

Anal Fissure

HISTORY

Intense 'tearing' pain during defecation, lasting hours. Bright red blood on toilet paper.

EXAMINATION

Visible linear tear in anal canal skin. Spasm of the anal sphincter.

INVESTIGATIONS

BEDSIDE/GP: Visual inspection of the anus. DEFINITIVE: None required unless underlying Crohn's or malignancy suspected.

TREATMENT

High fibre diet, laxatives. Topical GTN or Diltiazem cream to relax sphincter.

— : Multiple fissures, chronic diarrhoea (think Crohn's disease or anal cancer).

": Small tear in the back passage skin. Painful but treatable with creams to relax the muscle."

Appendicitis

HISTORY

Periumbilical abdominal pain migrating to the right iliac fossa (RIF). Anorexia, nausea, low- grade fever.

EXAMINATION

RIF tenderness (McBurney's point), guarding, rebound tenderness. Rovsing's sign positive.

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick (rule out UTI/pregnancy), Vital signs. DEFINITIVE: Bloods: FBC (neutrophilia), CRP. Ultrasound or CT Abdomen if diagnosis is unclear.

TREATMENT

NBM (nil by mouth), IV fluids, IV antibiotics. Surgical appendicectomy.

— : Rigid board-like abdomen, severe generalized pain (suggests appendix rupture and peritonitis).

": Inflammation of a small pouch attached to the large intestine. It causes severe tummy pain and usually needs surgical removal."

DDx: Ectopic Pregnancy, Ovarian Torsion, Mesenteric Adenitis, UTI, Crohn's Disease. Recent upper respiratory infection points to mesenteric adenitis. Missed period/spotting strongly suggests ectopic pregnancy. Right iliac fossa guarding/ rebound is classic for appendicitis. Renal angle tenderness suggests pyelonephritis/UTI. Negative urinary beta-hCG absolutely rules out ectopic pregnancy. Normal urine dipstick rules out UTI. Ultrasound/CT abdomen visualizes an inflamed appendix.

Ascites

HISTORY

Progressive abdominal swelling, weight gain, feeling full quickly, breathlessness (splinting of diaphragm), swollen ankles.

Associated with liver cirrhosis, heart failure, or abdominal cancers.

EXAMINATION

Distended abdomen with shifting dullness on percussion. Fluid thrill (in massive ascites). Check for signs of portal hypertension (caput medusae) or liver disease.

INVESTIGATIONS

BEDSIDE/GP: Measure abdominal girth. Weigh the patient. Assess for alcohol use. DEFINITIVE: Ultrasound abdomen confirms fluid. Diagnostic ascitic tap (paracentesis) to calculate Serum-Ascites Albumin Gradient (SAAG) >11g/L means portal hypertension.

TREATMENT

Low sodium diet. Diuretics (Spironolactone +/- Furosemide). Therapeutic large-volume paracentesis for symptomatic relief (draining the fluid). TIPS procedure.

— : Spontaneous Bacterial Peritonitis (SBP): A patient with ascites presenting with fever and abdominal pain. Requires urgent diagnostic tap and IV antibiotics.

": A large build-up of fluid inside the tummy cavity, usually because of severe liver scarring (cirrhosis) or cancer. We can drain the fluid with a needle to make breathing and eating more comfortable."

Biliary Atresia

HISTORY

Neonate presenting with prolonged jaundice (>14 days in term, >21 days in preterm babies). Passing pale (chalky) stools and dark urine.

EXAMINATION

Jaundice. Hepatomegaly (enlarged liver). Faltering growth.

INVESTIGATIONS

BEDSIDE/GP: Inspect nappy for pale stools and dark urine. DEFINITIVE: Split bilirubin blood test (shows high CONJUGATED bilirubin). Liver ultrasound (absent/ abnormal gallbladder). Cholangiogram (definitive).

TREATMENT

Urgent Kasai procedure (hepatoportoenterostomy) to restore bile flow, ideally before 8 weeks of life. Ultimately, most will need a liver transplant.

— : Unconjugated jaundice is common and usually harmless (breast milk jaundice), but prolonged CONJUGATED jaundice with pale stools is an absolute red flag for liver/biliary disease.

": A rare but serious disease in babies where the tubes carrying bile from the liver to the gut are blocked or absent. This damages the liver and needs a major operation very early in life."

Cholecystitis (Acute)

HISTORY

of gallstones.

EXAMINATION

Fever, tachycardia. RUQ tenderness. Positive Murphy's sign (patient catches breath when you press RUQ and they breathe in).

INVESTIGATIONS

BEDSIDE/GP: Vital signs (fever). Urine dipstick. DEFINITIVE: Bloods: Raised WBC and CRP. LFTs usually normal (or mildly deranged). First-line imaging: Abdominal Ultrasound (thickened gallbladder wall, gallstones, pericholecystic fluid).

TREATMENT

Hospital admission. NBM, IV fluids, IV antibiotics (e.g., Co-amoxiclav). Early laparoscopic cholecystectomy (usually within 72 hours).

— : Jaundice indicates a stone has slipped into the common bile duct (Choledocholithiasis). Sepsis/Septic shock.

": A gallstone has become stuck in the neck of your gallbladder, causing it to become severely inflamed and infected. You need hospital antibiotics and an operation to remove it."

Cirrhosis

HISTORY

of alcohol excess, Hep B/C, or NAFLD risk factors. Confusion (encephalopathy). Spider naevi, caput medusae, palmar erythema, and asterixis (flapping tremor). Low albumin and prolonged PT (synthetic failure). Ultrasound/ Fibroscan shows nodular, shrunken liver. Endoscopy rules in/out varices.

EXAMINATION

Jaundice, spider naevi, palmar erythema, gynaecomastia, hepatosplenomegaly, shifting dullness (ascites), asterixis (flapping tremor).

INVESTIGATIONS

BEDSIDE/GP: Calculate Child-Pugh or MELD score. DEFINITIVE: Liver Ultrasound (coarse, nodular liver). Fibroscan. Bloods: Low albumin, prolonged PT/INR, low platelets.

TREATMENT

Treat cause (stop alcohol). Diuretics (Spironolactone) for ascites. Lactulose for encephalopathy. Beta-blockers to prevent variceal bleeding. Liver transplant.

— : Massive upper GI bleed from ruptured oesophageal varices (emergency). Spontaneous bacterial peritonitis (fever in ascites).

": Severe, irreversible scarring of the liver. The liver shrinks and stops filtering toxins or making clotting proteins. It causes fluid to leak into the tummy and can cause confusion or major bleeding. Sometimes a transplant is the only cure."

DDx: Heart Failure (congestive hepatopathy), BuddChiari Syndrome, Liver Metastases.

Coeliac Disease

HISTORY

Chronic diarrhoea, bloating, abdominal pain, unexplained weight loss, extreme fatigue. In children: faltering growth.

EXAMINATION

Often normal. May have pallor (anaemia), mouth ulcers, or a blistering itchy skin rash (dermatitis herpetiformis).

INVESTIGATIONS

BEDSIDE/GP: Weight and BMI assessment. DEFINITIVE: Blood: IgA tTG antibodies (patient MUST be eating a gluten-containing diet). Gold standard: Duodenal biopsy via endoscopy showing villous atrophy.

TREATMENT

Strict, lifelong gluten-free diet. Dietician referral. Monitor for osteoporosis (DEXA scan).

— : Unexplained significant weight loss with iron deficiency anaemia (requires urgent cancer pathway referral).

": An autoimmune condition where your immune system reacts to gluten (a protein found in wheat), damaging the lining of your gut."

DDx: Irritable Bowel Syndrome (IBS), Inflammatory Bowel Disease (Crohn's/UC), Lactose Intolerance. Symptoms strictly correlate with gluten ingestion. Onset of IBS-like symptoms at an older age warrants ruling out cancer or coeliac. Presence of Dermatitis Herpetiformis (itchy blisters on elbows/knees) is highly specific for coeliac. Positive Anti-Tissue Transglutaminase (anti-tTG) antibodies. Duodenal biopsy on endoscopy showing villous atrophy is the gold standard diagnostic.

Colorectal Cancer

HISTORY

Persistent change in bowel habit (looser stools/increased frequency), rectal bleeding, tenesmus (feeling of incomplete emptying), weight loss.

EXAMINATION

(DRE), FIT (Faecal Immunochemical Test) for occult BEDSIDE/GP: blood. DEFINITIVE: Urgent colonoscopy with biopsy. CT Chest/Abdomen/Pelvis for staging.

INVESTIGATIONS

BEDSIDE/ Digital Rectal

TREATMENT

Surgical resection. Adjuvant chemotherapy depending on staging. Palliative care if advanced.

— : Large bowel obstruction (abdominal distension, absolute constipation, vomiting), bowel perforation.

": Cancer of the large bowel or rectum. We use a camera test (colonoscopy) to find it and usually treat it with surgery."

DDx: Diverticular Disease, Haemorrhoids, Inflammatory Bowel Disease (IBD), IBS. Unexplained weight loss, new-onset change in bowel habit in an older patient, and iron-deficiency anaemia point away from benign causes like IBS. Palpable abdominal or rectal mass on DRE strongly suggests cancer. Bright red blood on toilet paper often suggests haemorrhoids, but cancer must still be ruled out. Colonoscopy visualizes the tumour. Positive biopsy confirms cancer and rules out diverticular disease or isolated polyps. Elevated FIT test.

Constipation (Paediatric and Adult)

HISTORY

Infrequent bowel movements (<3 per week), hard/lumpy stools, straining, feeling of incomplete emptying. In children: soiling/overflow incontinence, withholding behaviours (dancing, crossing legs).

EXAMINATION

Palpable faecal mass in the abdomen (often left iliac fossa). Anal fissure may be visible. DRE in adults if suspecting impaction or cancer.

INVESTIGATIONS

BEDSIDE/GP: Review diet (fibre/fluid intake) and medications (opioids, anticholinergics). DEFINITIVE: Clinical diagnosis. TFTs/Calcium in adults if refractory. Coeliac screen/TFTs in children if faltering growth.

TREATMENT

Adults: Lifestyle -> Bulk-forming (Ispaghula) -> Osmotic (Macrogol) -> Stimulant (Senna). Children: Macrogol (Movicol) first line as a disimpaction regimen, then maintenance.

— : Adults: Change in bowel habit >60 years old, weight loss, PR bleeding (requires 2-week-wait for Colorectal Cancer). Children: delayed passage of meconium (>48h) suggests Hirschsprung's disease.

": Difficulty passing stool, usually due to a lack of fibre or water, or certain medications. In kids, it often starts after a painful poop, causing them to hold it in. Laxatives help soften the stool to break the cycle."

Crohn's Disease

HISTORY

Chronic diarrhoea (often non-bloody), right lower quadrant abdominal pain, weight loss, extreme fatigue, recurrent mouth ulcers.

EXAMINATION

Abdominal tenderness, perianal skin tags or fistulas, clubbing. Extra-intestinal: uveitis, erythema nodosum.

INVESTIGATIONS

BEDSIDE/GP: Stool sample for Faecal Calprotectin (raised indicates bowel inflammation). DEFINITIVE: Colonoscopy with biopsies (shows 'skip lesions' and cobblestone appearance affecting any part of the GI tract from mouth to anus).

TREATMENT

Induce remission: Oral/IV Corticosteroids. Maintenance: Immunosuppressants (Azathioprine) or Biologics (Infliximab).

— : Toxic megacolon, bowel obstruction, severe malnutrition.

": A lifelong condition that causes patches of inflammation anywhere along the digestive system. We use strong medications to calm the immune system down."

Diverticular Disease

HISTORY

Diverticulosis: asymptomatic. Diverticular disease: intermittent lower left-sided abdominal pain, bloating, constipation/diarrhoea. Diverticulitis: constant severe LIF pain, fever.

EXAMINATION

Left Iliac Fossa (LIF) tenderness. Guarding/rigidity if perforated.

INVESTIGATIONS

BEDSIDE/GP: Vital signs (fever, tachycardia in diverticulitis). Urine dipstick to rule out UTI. DEFINITIVE: Bloods (raised CRP/WBC in diverticulitis). CT Abdomen (diagnostic for diverticulitis). Colonoscopy (later, to rule out cancer).

TREATMENT

Disease: High fibre diet. Uncomplicated Diverticulitis: Oral Co-amoxiclav, liquid diet. Complicated/Severe: IV antibiotics, surgery (Hartmann's).

— : Perforation (rigid abdomen, peritonitis), large lower GI bleed, abscess formation.

": Small pouches form in the wall of your large bowel. If they get inflamed or infected (diverticulitis), it causes severe pain and needs antibiotics or a special diet."

DDx: Colorectal Cancer, Irritable Bowel Syndrome (IBS), Inflammatory Bowel Disease (IBD), Ischaemic Colitis. Constant Left Iliac Fossa (LIF) pain + fever = diverticulitis. Change in bowel habit + weight loss = cancer. LIF tenderness. A palpable hard mass could be cancer or a diverticular phlegmon/ abscess. CT Abdomen is diagnostic for acute diverticulitis. Colonoscopy (done weeks after acute phase) rules out colorectal cancer.

Gallstones and Biliary Colic

HISTORY

Episodic severe Right Upper Quadrant (RUQ) or epigastric pain, often triggered by heavy/fatty meals. Pain may radiate to right shoulder/back. Nausea and vomiting.

EXAMINATION

RUQ tenderness. In simple biliary colic, there is NO fever and Murphy's sign is negative. Patient is typically restless.

INVESTIGATIONS

BEDSIDE/GP: Vital signs (to rule out fever/cholecystitis). Urine dipstick (rule out renal colic). DEFINITIVE: Bloods: LFTs (usually normal in simple colic), CRP/FBC. Abdominal Ultrasound (first- line, highly sensitive for gallstones).

TREATMENT

Analgesia (NSAIDs like Diclofenac or opioids). Lifestyle advice (low-fat diet). Elective laparoscopic cholecystectomy to prevent recurrence.

— : Constant RUQ pain + fever + positive Murphy's sign = Acute Cholecystitis. Jaundice = Choledocholithiasis. Jaundice + fever + RUQ pain = Acute Cholangitis (Emergency!).

": Hard stones form in your gallbladder. When the gallbladder squeezes to release bile after a meal, a stone gets temporarily stuck in the duct, causing severe cramping pain."

DDx: Acute Cholecystitis, Peptic Ulcer Disease, GORD, Pancreatitis. Pain is episodic and severe (colicky), related to fatty meals. Constant pain lasting >6 hours suggests progression to cholecystitis. Absence of fever, and a negative Murphy's sign (no catch in breath on palpating RUQ) rules out acute cholecystitis. Normal WBC and CRP rule out cholecystitis/infection. Normal amylase/lipase rules out pancreatitis. Ultrasound shows gallstones with a thin, normal gallbladder wall.

Gastric Cancer

HISTORY

Persistent dyspepsia (indigestion), unexplained weight loss, early satiety (feeling full quickly), dysphagia, upper abdominal pain, nausea/vomiting.

EXAMINATION

Often normal early on. Late signs: Epigastric mass, left supraclavicular lymphadenopathy (Virchow's node / Troisier's sign), signs of anaemia (pallor).

INVESTIGATIONS

BEDSIDE/GP: Check for clinical signs of anaemia. Abdominal palpation. DEFINITIVE: FBC (iron deficiency anaemia). Urgent upper GI endoscopy (OGD) with biopsy (gold standard). CT chest/abdomen/pelvis for staging.

TREATMENT

MDT approach. Surgical resection (partial or total gastrectomy) +/- neoadjuvant or adjuvant chemotherapy.

— : Any patient >55 with new-onset, unexplained dyspepsia requires an urgent 2- week-wait endoscopy referral.

": Cancer in the stomach lining. It can mimic simple indigestion but causes weight loss and feeling full quickly. A camera test is needed to check the stomach."

DDx: Peptic Ulcer Disease (PUD), GORD, Gastritis. Alarm symptoms: Dysphagia, weight loss, early satiety, or persistent vomiting. GORD/PUD symptoms usually respond to PPIs; cancer does not. Virchow’s node (left supraclavicular node) or epigastric mass strongly suggests gastric cancer. Upper GI Endoscopy (OGD) with multiple biopsies is the gold standard to distinguish between an ulcer and a malignant lesion.

Gastro-oesophageal Reflux Disease (GORD)

HISTORY

Heartburn (retrosternal burning pain), acid regurgitation, waterbrash, chronic cough (worse at night), hoarseness.

Worse after large meals or lying down.

EXAMINATION

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INVESTIGATIONS

BEDSIDE/GP: Calculate BMI (obesity is a major risk factor). DEFINITIVE: Often a clinical diagnosis treated empirically. Endoscopy only if

TREATMENT

Lifestyle: weight loss, small meals, elevate head of bed, avoid triggers (coffee, alcohol). Meds: Full-dose PPI (Omeprazole/Lansoprazole) for 4-8 weeks.

— : ALARM symptoms: Anaemia, Loss of weight, Anorexia, Recent onset/ Progressive symptoms, Melaena/haematemesis, Swallowing difficulty (Dysphagia).

": Stomach acid leaks up into the food pipe because the valve between them is weak. It causes a burning sensation. Acid-lowering tablets and diet changes help."

DDx: Peptic Ulcer Disease, Cardiac Ischaemia (Angina), Oesophageal Cancer, Achalasia. Pain is burning, worse when lying flat or after meals. 'Alarm' symptoms (dysphagia, weight loss) suggest cancer, not simple GORD. Exertional pain suggests angina. Usually normal. Normal BMI makes GORD slightly less likely (obesity is a major risk). Normal 12-lead ECG rules out cardiac causes. Endoscopy (OGD) is normal or shows oesophagitis, ruling out malignancy and peptic ulcers.

Haemorrhoids (Piles)

HISTORY

Painless, bright red rectal bleeding (on toilet paper or splashing in the pan). Perianal itching, feeling of a lump or incomplete emptying.

EXAMINATION

(DRE) to rule out lower BEDSIDE/GP: rectal masses. DEFINITIVE: Proctoscopy (to visualize internal haemorrhoids). Flexi-sigmoidoscopy or colonoscopy if

INVESTIGATIONS

BEDSIDE/ External inspection of the anus. Digital Rectal

TREATMENT

s (steroid/local anaesthetic creams). Outpatient: Rubber band ligation. Surgical: Haemorrhoidectomy.

— : Change in bowel habit, weight loss, dark blood mixed with stool, or age >40-50 with unexplained rectal bleeding (Cancer pathways). Thrombosed haemorrhoid (extreme severe pain).

": Swollen blood vessels just inside or outside the back passage. They cause bright red bleeding and itching. Drinking more water and eating fibre usually helps."

DDx: Anal Fissure, Colorectal Cancer, Rectal Prolapse, Inflammatory Bowel Disease (IBD). Bright red blood on paper/ dripping into bowl. Not mixed with stool (rules in hemorrhoids). Extreme pain on defecation rules in Anal Fissure. Visible external piles or soft internal piles on Proctoscopy. A hard, fixed mass on DRE rules in cancer. Proctoscopy visualizes the hemorrhoids. Flexible sigmoidoscopy/colonoscopy is required in patients >50 to rule out a proximal malignancy.

Hepatitis (Viral - Acute)

HISTORY

. DEFINITIVE: LFTs (Massively raised ALT/AST >1000). Viral hepatitis serology screen (Hep A IgM, Hep B sAg, Hep C Ab).

EXAMINATION

Jaundice (scleral icterus). Tender hepatomegaly.

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick (positive for bilirubin). Ask about travel, sexual, and IV drug

TREATMENT

Usually supportive for acute Hep A/B/E (fluids, rest). Notification to Public Health. Avoid alcohol and hepatotoxic drugs (like Paracetamol).

— : Fulminant hepatic failure (altered mental state/encephalopathy, bruising/ bleeding, hypoglycaemia).

": A viral infection that inflames the liver, causing you to feel very unwell and turn yellow. Most acute cases get better on their own with rest, but we do blood tests to find exactly which virus caused it."

Hernias (Inguinal/Femoral)

HISTORY

Lump in the groin. Aching, dragging sensation, or pain, especially on straining, lifting, or coughing. May disappear when lying down.

EXAMINATION

Palpable lump. Cough impulse present. Inguinal: Above and medial to pubic tubercle. Femoral: Below and lateral to pubic tubercle. Check if reducible.

INVESTIGATIONS

BEDSIDE/GP: Examine while standing and lying flat. Examine the scrotum in men. DEFINITIVE: Usually a clinical diagnosis. Ultrasound scan if the diagnosis is ambiguous.

TREATMENT

Conservative (watch and wait if asymptomatic/reducible). Surgical repair (mesh repair) for symptomatic or high-risk hernias.

— : Incarceration (irreducible/stuck) or Strangulation (extreme pain, tender, red, irreducible + signs of bowel obstruction like vomiting) = Surgical Emergency.

": A weakness in the abdominal muscle wall allowing a part of the bowel or fat to push through, causing a lump. It can be repaired with a simple operation."

Hiatus Hernia

HISTORY

Often asymptomatic. Sliding hiatus hernia presents identically to GORD (heartburn, acid reflux, waterbrash). Rolling hiatus hernia may cause dysphagia or chest pain after eating.

EXAMINATION

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INVESTIGATIONS

BEDSIDE/GP: Calculate BMI (obesity increases intra-abdominal pressure). DEFINITIVE: Upper GI Endoscopy (OGD) or Barium swallow (shows stomach protruding through diaphragm).

TREATMENT

Lifestyle: Weight loss, small meals, elevate head of bed. Medical: PPIs (Omeprazole). Surgical: Laparoscopic fundoplication if severe/refractory.

— : Dysphagia (difficulty swallowing), unexplained weight loss, or melaena requires an urgent endoscopy to rule out oesophageal cancer.

": Part of your stomach squeezes up through the gap in your diaphragm into your chest. This weakens the valve that keeps stomach acid down, causing severe heartburn. Weight loss and acid tablets help manage it."

DDx: Hospital Acquired Infections (e.g., MRSA, C. diff,

Infectious Diarrhoea / Gastroenteritis

HISTORY

Sudden onset of vomiting, watery diarrhoea, abdominal cramps, and fever. Viral (Norovirus/ Rotavirus): vomiting prominent. Bacterial (Campylobacter/Salmonella): higher fever, severe cramps, sometimes bloody stool.

EXAMINATION

Assess for dehydration (dry mucous membranes, sunken eyes, tachycardia, reduced skin turgor). Mild diffuse abdominal tenderness but no rigidity.

INVESTIGATIONS

BEDSIDE/GP: Vital signs. Capillary refill. Assess fluid status. DEFINITIVE: Usually self-limiting; no tests needed. Stool culture if: blood in stool, immunocompromised, recent foreign travel, or symptoms >7 days.

TREATMENT

Oral rehydration (fluids with sugar/salt). Avoid anti-diarrhoeals (Loperamide) if fever or bloody stool is present. IV fluids if severely dehydrated. Antibiotics rarely needed.

— : Haemolytic Uraemic Syndrome (HUS) following E. coli O157 infection (bloody diarrhoea followed by acute kidney failure, anaemia, and bruising).

": A 'tummy bug' causing vomiting and diarrhoea. The most important thing is to drink plenty of fluids to replace what you are losing. It usually clears up on its own within a few days."

Intestinal (Mesenteric) Ischaemia

HISTORY

Acute: Sudden, severe abdominal pain that is out of proportion to physical signs. Often accompanied by vomiting and bloody diarrhoea. High risk in patients with Atrial Fibrillation (embolus). Chronic: 'Intestinal angina' - severe pain 30 mins after eating, leading to weight loss/ fear of food.

EXAMINATION

findings is highly suspicious for dead/dying bowel.

INVESTIGATIONS

BEDSIDE/GP: Vital signs. 12-lead ECG to check for AF. VBG/ABG (elevated lactate). DEFINITIVE: CT Angiography of the abdomen is the gold standard (shows blocked mesenteric vessels).

TREATMENT

Acute: Surgical emergency. Resuscitation, IV fluids, IV antibiotics. Urgent laparotomy to resect dead bowel or embolectomy/stent. High mortality rate.

— : Elevated lactate with severe pain out of proportion to

": A blood clot blocks the main artery feeding your intestines, cutting off the oxygen. It causes extreme pain but your tummy might feel normal to touch at first. Without emergency surgery, the bowel dies."

Intestinal Obstruction and Ileus

HISTORY

Mechanical Obstruction: Colicky abdominal pain, vomiting (often dark/faeculent), absolute constipation (no flatus or stool), abdominal distension. Ileus: Painless distension, no bowel movements, nausea (often post-op).

EXAMINATION

Obstruction: Distended, resonant abdomen. High-pitched 'tinkling' bowel sounds. Ileus: Distended abdomen with ABSENT bowel sounds.

INVESTIGATIONS

BEDSIDE/ Check for hernias (common cause of obstruction) and surgical scars (adhesions). BEDSIDE/GP: Vital signs. DEFINITIVE: Bloods: U&Es (dehydration/AKI), Lactate. Abdominal X-ray (dilated loops of bowel). CT Abdomen/Pelvis (gold standard to find the cause and site of obstruction).

TREATMENT

Drip and Suck: NBM, IV fluids, Nasogastric (NG) tube to decompress stomach. Surgery required if strangulated/closed-loop obstruction or no improvement.

— : Strangulation: Continuous (non-colicky) severe pain, localised tenderness/ guarding, fever, raised lactate. Means the bowel is dying and needs immediate emergency surgery.

": A physical blockage in the bowel (obstruction) or the bowel simply stopping its squeezing action (ileus). It causes your stomach to swell and makes you vomit. We treat it by resting the bowel with a tube and drips, sometimes needing surgery."

Intussusception

HISTORY

Infant (typically 6-18 months). Paroxysms of severe, colicky abdominal pain causing the child to draw their knees to their chest and cry. Between episodes, the child may look pale, lethargic, or normal. Vomiting.

EXAMINATION

Palpable 'sausage-shaped' mass in the right upper quadrant. 'Redcurrant jelly' stool (late sign - blood mixed with mucus).

INVESTIGATIONS

BEDSIDE/GP: Inspect nappy for blood. Vital signs (check for shock). DEFINITIVE: Abdominal Ultrasound is the investigation of choice (shows a 'target' or 'doughnut' sign).

TREATMENT

Resuscitation with IV fluids. Air or liquid contrast enema reduction (radiologist pushes the bowel back out using pressure). Surgery if enema fails or bowel is perforated.

— : Signs of peritonitis or shock (floppy, unresponsive infant) require immediate surgical intervention.

": A medical emergency in babies where one part of the bowel folds inside the next part, like a telescope. It causes severe, cramping pain and blocks the bowel. It is usually fixed by pushing air into the bowel to pop it back out."

Irritable Bowel Syndrome (IBS)

HISTORY

Abdominal pain relieved by defecation. Altered bowel habit (diarrhoea/constipation/mixed). Bloating, mucus in stool.

EXAMINATION

Normal exam, mild general tenderness.

INVESTIGATIONS

BEDSIDE/GP: Weight check. DEFINITIVE: Diagnosis of exclusion. Normal FBC, CRP, Coeliac screen, and Faecal Calprotectin.

TREATMENT

Low FODMAP diet, Mebeverine (spasms), Laxatives or Loperamide. Low-dose Amitriptyline.

— : Weight loss, rectal bleeding, onset >60 years old (requires cancer rule-out).

": A sensitive gut causing cramps, bloating, and unpredictable bowels. Not dangerous, managed with diet and symptom-relieving tablets."

DDx: J

Liver Failure (Acute)

HISTORY

of chronic liver disease. Causes: Paracetamol overdose, acute viral hepatitis (A, B, E), autoimmune hepatitis.

EXAMINATION

Hepatic encephalopathy (altered GCS, confusion, asterixis/flapping tremor). Jaundice. Signs of bleeding. Ascites may develop rapidly.

INVESTIGATIONS

BEDSIDE/ Urgent ABCDE. Capillary blood glucose (liver fails to store glycogen, leading to severe BEDSIDE/GP: hypoglycaemia). DEFINITIVE: Markedly prolonged PT/INR (first indicator of failure). Massive rise in LFTs (ALT/AST). Bilirubin high. Renal function (high risk of hepatorenal syndrome). Paracetamol level, Hepatitis serology.

TREATMENT

ICU admission. Treat cause (N-acetylcysteine for paracetamol toxicity). Correct hypoglycaemia with IV Dextrose. Lactulose for encephalopathy. Urgent discussion with a liver transplant centre.

— : Development of hepatic encephalopathy or severe coagulopathy (bleeding) is the defining feature distinguishing liver 'injury' from liver 'failure'. High mortality rate.

": A rare, life-threatening emergency where a previously healthy liver rapidly stops working, often due to an overdose or severe virus. Toxins build up in the blood causing confusion, and blood stops clotting properly. It often requires care in intensive care and possibly a liver transplant."

Malabsorption (e.g., Chronic Pancreatitis / Coeliac)

HISTORY

Chronic diarrhoea, steatorrhoea (pale, greasy, foul-smelling stools that are difficult to flush), unintentional weight loss, abdominal bloating. Symptoms of nutritional deficiencies: fatigue (anaemia), easy bruising (Vit K), bone pain (Vit D).

EXAMINATION

Signs of weight loss, cachexia. Pallor. Glossitis (smooth red tongue from B12 deficiency), angular stomatitis. Easy bruising.

INVESTIGATIONS

BEDSIDE/GP: Calculate BMI. Inspect stool if possible. DEFINITIVE: Faecal Elastase (low in pancreatic exocrine insufficiency). Coeliac screen (Anti-tTG antibodies). Bloods: FBC, B12, Folate, Iron, Calcium, Vitamin D, clotting profile.

TREATMENT

Depends on cause. Pancreatic insufficiency: Creon (pancreatic enzyme replacement therapy) taken with meals. Coeliac: strict gluten-free diet. Replace missing vitamins/minerals.

— : Unexplained weight loss and steatorrhoea in older patients requires urgent imaging (CT Pancreas) to rule out Pancreatic Cancer.

": The bowel is failing to absorb nutrients and fats from food properly, causing weight loss, vitamin deficiencies, and pale, greasy bowel movements. We need to find the cause (like a pancreas problem or gluten allergy) to treat it."

DDx: Coeliac Disease, Chronic Pancreatitis, Crohn's Disease, Small Intestinal Bacterial Overgrowth (SIBO). Steatorrhoea (pale, oily, floating stools). Chronic alcohol use points to pancreatitis. Signs of vitamin deficiency: bruising (Vit K), glossitis (B12/Iron), peripheral neuropathy. Faecal Elastase (low in Pancreatic Insufficiency). Anti-tTG (Coeliac). Colonoscopy (Crohn's). Hydrogen Breath Test (SIBO).

Malnutrition & Refeeding Syndrome

HISTORY

Unintentional weight loss, very low BMI, poor dietary intake for >5 days. Risk factors: anorexia, elderly/frail, chronic alcoholism, malabsorption.

EXAMINATION

Cachexia, muscle wasting, poor skin healing, prominent bones.

INVESTIGATIONS

BEDSIDE/GP: Calculate MUST (Malnutrition Universal Screening Tool) score. Check BMI. DEFINITIVE: Bloods: baseline U&Es, Phosphate, Magnesium, Calcium (the key electrolytes to monitor).

TREATMENT

Dietician input. ONS (Oral Nutritional Supplements) or enteral feeding (NG tube). High risk of refeeding syndrome: start feeding very slowly and give IV/oral Pabrinex (Thiamine) before feeding begins.

— : Refeeding syndrome: Suddenly giving food/carbs causes a massive insulin spike, which drives Phosphate, Magnesium, and Potassium into cells. This leads to fatal cardiac arrhythmias and seizures.

": When someone is severely malnourished, their body adapts to starvation. If we suddenly feed them large amounts, it shocks the system and causes a dangerous drop in blood salts, which can stop the heart. We must feed them very slowly and give vitamins."

Mesenteric Adenitis

HISTORY

Child/Adolescent. Lower right-sided abdominal pain (mimics appendicitis), fever. Often preceded by a recent viral upper respiratory tract infection or sore throat.

EXAMINATION

Tenderness in the right iliac fossa, but the child is usually less 'toxic' looking than in appendicitis. Generalized lymphadenopathy (e.g., in the neck) may be present.

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick, vital signs, check throat/ears. DEFINITIVE: Usually diagnosed when an ultrasound or CT done for suspected appendicitis shows enlarged mesenteric lymph nodes and a normal appendix.

TREATMENT

Self-limiting viral condition. Analgesia (Paracetamol/Ibuprofen) and reassurance. Observe.

— : It is extremely difficult to distinguish clinically from acute appendicitis. If there are signs of peritonitis, it must be treated as appendicitis until proven otherwise.

": Swollen lymph glands in the tummy, usually caused by a recent viral cold. It causes pain that feels exactly like appendicitis, but it is harmless and goes away on its own with simple painkillers."

Necrotising Enterocolitis (NEC)

HISTORY

Premature/low-birth-weight neonate. Feeding intolerance, vomiting (often bilious/green), bloody stools, lethargy, apnoea, and temperature instability.

EXAMINATION

Distended, tense, shiny, and erythematous (red) abdomen. Absent bowel sounds.

INVESTIGATIONS

BEDSIDE/GP: Stop enteral feeding immediately if NEC suspected. Vital signs. DEFINITIVE: Abdominal X-ray: shows dilated bowel loops, bowel wall thickening, and pneumatosis intestinalis (gas in the bowel wall). Free air if perforated.

TREATMENT

NBM, total parenteral nutrition (TPN), IV fluids, broad-spectrum IV antibiotics. Surgical resection of the necrotic (dead) bowel and stoma formation if perforated or not improving.

— : Rapidly fatal if not treated aggressively. Causes massive bowel necrosis and systemic sepsis in highly vulnerable premature babies.

": A very serious disease in premature babies where the tissue lining the intestines becomes inflamed and starts to die. It causes a swollen, red tummy and needs emergency antibiotics and often surgery to remove the dead bowel."

Norovirus)

HISTORY

C. diff: Profuse, foul-smelling, watery diarrhoea and abdominal pain starting after a course of antibiotics. MRSA: Non-healing surgical wound. Norovirus: Sudden projectile vomiting and diarrhoea on a ward.

EXAMINATION

Signs of dehydration, fever, or wound infection.

INVESTIGATIONS

BEDSIDE/ Immediate isolation of the patient (side room) with strict contact precautions. Fluid BEDSIDE/GP: balance. DEFINITIVE: C. diff: Stool sample for C. diff toxin. MRSA: Swab of wound/groin/nose. Norovirus: Stool sample for viral PCR.

TREATMENT

C. diff: Oral Vancomycin or Fidaxomicin. Stop the offending antibiotic. MRSA: Specific antibiotics based on sensitivities (e.g., IV Vancomycin).

— : Toxic megacolon in C. diff (severe abdominal distension, shock) requires emergency colectomy.

": Infections caught while staying in the hospital. C. diff is a bowel bug caused by other antibiotics wiping out good gut bacteria. They require strict handwashing and isolation to stop them spreading."

Oesophageal Cancer

HISTORY

Progressive dysphagia (difficulty swallowing) - initially to solids, then progressing to liquids. Significant unintentional weight loss, hoarseness, persistent acid reflux, vomiting.

EXAMINATION

Often normal early on. Late: cachexia, cervical lymphadenopathy.

INVESTIGATIONS

BEDSIDE/GP: Calculate MUST (malnutrition) score. DEFINITIVE: Urgent 2-week-wait Upper GI Endoscopy (OGD) with biopsy. CT Chest/Abdomen/Pelvis for staging. Endoscopic Ultrasound (EUS) to assess local invasion.

TREATMENT

MDT. Surgical resection (Oesophagectomy) if fit and localized. Neoadjuvant chemo/ radiotherapy. Palliative: Oesophageal stenting to allow swallowing.

— : Dysphagia in ANY patient is an absolute red flag for cancer and warrants an urgent endoscopy.

": Cancer of the food pipe. It slowly narrows the pipe, making it hard to swallow solid food, leading to severe weight loss. We use a camera test to find it, and may treat it with surgery or by placing a tube (stent) to keep the pipe open."

Pancreatic Cancer

HISTORY

Painless obstructive jaundice (yellow skin, dark urine, pale stools). Unexplained profound weight loss, upper abdominal pain radiating to the back, new-onset diabetes in an older, thin patient.

EXAMINATION

Jaundice, scratch marks (pruritus). Courvoisier's law: A palpable, non-tender gallbladder in a jaundiced patient is unlikely to be gallstones (strongly suggests pancreatic/biliary cancer).

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick (bilirubin). DEFINITIVE: High-resolution CT Abdomen/Pancreas (first-line imaging). Tumour marker CA19-9. Endoscopic ultrasound (EUS) with biopsy.

TREATMENT

Surgical resection (Whipple's procedure / pancreaticoduodenectomy) if resectable. Palliative stenting for jaundice. Palliative chemotherapy.

— : Painless jaundice is a red-flag symptom for malignancy until proven otherwise.

": A very aggressive cancer in the pancreas. It often blocks the bile ducts, causing you to turn yellow (jaundice) without any pain. It requires urgent specialist scans."

DDx: Gallstones, Chronic Pancreatitis, Hepatitis. Painless obstructive jaundice and significant weight loss. Back pain that is worse when lying flat. Courvoisier’s sign (palpable non-tender gallbladder) + jaundice. Trousseau’s sign (migratory thrombophlebitis). Elevated CA 19-9. CT Pancreas (dual-phase) shows the mass. MRCP/ERCP for duct visualization.

Peptic Ulcer Disease

HISTORY

of NSAID use or H. pylori. Epigastric tenderness. No palpable masses. H. pylori breath/stool test. Endoscopy (OGD) is definitive and rules out gastric cancer via biopsy.

EXAMINATION

Epigastric tenderness on palpation. Signs of anaemia if chronically bleeding.

INVESTIGATIONS

BEDSIDE/GP: Review medications (stop NSAIDs/Aspirin if possible). DEFINITIVE: Non-invasive: Stool antigen test or 13C Urea breath test for H. pylori. Invasive: Upper GI Endoscopy (OGD) is gold standard to visualize and biopsy the ulcer (to rule out gastric cancer).

TREATMENT

Stop NSAIDs. Eradicate H. pylori if positive (Triple therapy: PPI + Amoxicillin + Clarithromycin for 7 days). High dose PPI (Omeprazole) to allow healing.

— : Perforated ulcer: Sudden, excruciating, rigid abdominal pain (peritonitis). Bleeding ulcer: Haematemesis (vomiting blood/coffee grounds) or Melaena (black tarry stool). Both are emergencies.

": A raw sore in the lining of the stomach or the first part of the small bowel, usually caused by a bacterial infection (H. pylori) or painkillers like Ibuprofen. It causes burning tummy pain. We treat it with strong acid-lowering tablets and antibiotics."

DDx: Gastric Cancer, GORD, Gallstones, Pancreatitis. Epigastric pain related to hunger (Duodenal) or eating (Gastric). Relieved by antacids.

Perianal Abscesses and Fistulae

HISTORY

of previous abscess.

EXAMINATION

Abscess: Red, hot, tender, fluctuant lump next to the anus. Fistula: Small opening in the perianal skin, discharging pus.

INVESTIGATIONS

BEDSIDE/GP: Inspection of the perianal area. Check temperature. DEFINITIVE: Abscess: Clinical diagnosis. Fistula: MRI Pelvis is the gold standard to map the fistula tract.

TREATMENT

Abscess: Urgent surgical Incision and Drainage (I&D). Fistula: Surgical fistulotomy or placement of a seton string to allow it to drain and heal.

— : Fournier's Gangrene: Rapidly spreading, necrotizing infection of the perineum/ scrotum. Medical emergency requiring immediate massive surgical debridement.

": A painful collection of pus next to the back passage. It needs to be cut open and drained under anaesthetic. Sometimes it leaves a tiny tunnel (fistula) connecting the bowel to the skin, which leaks pus and needs another operation."

Peritonitis

HISTORY

Sudden onset, severe, continuous, generalised abdominal pain. Pain is dramatically worsened by any movement, coughing, or even the bed being bumped. Associated with fever, nausea, and vomiting. Often follows a perforated organ (e.g., appendix, ulcer, diverticulum).

EXAMINATION

Patient lies absolutely still. Board-like abdominal rigidity, severe guarding, rebound tenderness. Absent bowel sounds. Signs of sepsis/shock (tachycardia, hypotension, fever).

INVESTIGATIONS

BEDSIDE/GP: Immediate vital signs (NEWS2 score). Do not delay transfer to hospital. DEFINITIVE: Urgent CT Abdomen/Pelvis (shows free air/fluid in the abdomen). Bloods (raised Lactate, WBC, CRP). Erect Chest X-ray (may show air under the diaphragm).

TREATMENT

Surgical emergency. NBM, aggressive IV fluid resuscitation, broad-spectrum IV antibiotics. Urgent laparotomy to wash out the abdomen and fix the underlying perforation.

— : Septic shock and multi-organ failure develop rapidly. High mortality if surgery is delayed.

": A life-threatening infection of the lining of the whole tummy cavity, usually because a hole has developed in the bowel or stomach, leaking contents inside. It causes extreme pain with any movement and needs emergency surgery to wash it out."

DDx: Personality Disorders (e.g., Emotionally Unstable /

Pyloric Stenosis

HISTORY

Infant (typically 2-6 weeks old, often firstborn male). Projectile, forceful, NON-bilious vomiting immediately after feeding. The baby is always hungry afterward.

EXAMINATION

Visible gastric peristalsis (waves moving across the stomach before vomiting). A palpable 'olive-sized' mass in the right upper quadrant of the abdomen.

INVESTIGATIONS

BEDSIDE/ Test feed the baby to observe the projectile vomiting and feel for the olive mass. Check for dehydration. BEDSIDE/GP: DEFINITIVE: Venous blood gas (classic: hypochloraemic, hypokalaemic metabolic alkalosis from vomiting stomach acid). Ultrasound abdomen confirms thickened pylorus muscle.

TREATMENT

Urgent IV fluid resuscitation to correct the severe electrolyte imbalance FIRST. Then surgical Ramstedt's pyloromyotomy (cutting the tight muscle).

— : Severe dehydration and electrolyte shock. Do NOT operate until the electrolytes are completely normal.

": The muscle valve at the exit of the baby's stomach has grown too thick, completely blocking milk from entering the bowel. It causes violent, projectile vomiting. It is fixed with a very quick, routine operation."

DDx: R

Ulcerative Colitis (UC)

HISTORY

Gradual onset of frequent, small volume bloody diarrhoea with mucus. Left lower quadrant abdominal pain, tenesmus (feeling of incomplete bowel emptying), urgency.

EXAMINATION

May have abdominal tenderness. Systemic signs if severe: fever, tachycardia. Extraintestinal: primary sclerosing cholangitis (jaundice), erythema nodosum, episcleritis.

INVESTIGATIONS

BEDSIDE/GP: Faecal Calprotectin (raised). Stool culture (to rule out infectious gastroenteritis). DEFINITIVE: Bloods: FBC (anaemia), CRP/ESR. Colonoscopy with biopsies (continuous mucosal inflammation, limited to the colon, starting at the rectum).

TREATMENT

Inducing remission: Oral/topical Mesalazine (5-ASA) or Corticosteroids. Maintenance: Mesalazine, Azathioprine, Biologics. Curative surgery: Panproctocolectomy.

— : Toxic Megacolon: Severe acute flare causing massive colon dilation, fever, and shock. High risk of perforation. High long-term risk of colorectal cancer.

": A lifelong autoimmune disease causing ulcers and inflammation in the lining of the large bowel and rectum. It causes bloody diarrhoea and needs medication to keep the gut lining calm."

DDx: Crohn's Disease, Infective Colitis (e.g., Campylobacter, C. diff), IBS, Colorectal Cancer. Bloody diarrhoea, tenesmus (constant urge), and mucus. Crohn's is more likely to have weight loss and non-bloody stool. Abdominal tenderness (left-sided). Absence of perianal disease (rules out Crohn's). Faecal calprotectin >50. Colonoscopy shows continuous mucosal inflammation starting from the rectum. Biopsy shows 'crypt abscesses'.

Volvulus & Whooping Cough

HISTORY

Volvulus: Elderly (sigmoid) or young (caecal) with severe colicky abdo pain, massive swelling, no stool passing. Whooping Cough: Long bouts of severe coughing followed by a gasping 'whoop' sound, lasting months.

EXAMINATION

Volvulus: Massively distended, drum-like abdomen. Whooping cough: red face/vomiting during cough, otherwise normal.

INVESTIGATIONS

BEDSIDE/GP: Volvulus: Vitals (shock check). Whooping cough: Swab/PCR. DEFINITIVE: Volvulus: Abdominal X-ray ('coffee bean' sign). Whooping cough: PCR swab. Notify Public Health.

TREATMENT

Volvulus: Flatus tube decompression (sigmoid) or emergency surgery. Whooping cough: Macrolide antibiotics if caught early, mostly supportive.

— : Volvulus can cut off its own blood supply, dying and bursting (peritonitis) if not fixed quickly. Whooping cough is fatal in unvaccinated babies under 6 months.

": Volvulus is the bowel twisting on itself, blocking gas and stool, causing a huge tummy. It needs a tube or surgery to untwist. Whooping cough is a severe bacterial cough that lasts for 100 days; it's very dangerous for tiny babies."

Neurology & Neurosurgery

31 conditions

Bell's Palsy

HISTORY

Acute onset (over hours to a few days) of unilateral facial weakness. May have altered taste, hyperacusis (sounds seem too loud), or pain behind the ear. No other neurological symptoms.

EXAMINATION

to rule out other deficits. Check ears (for vesicles GP: Ramsay Hunt syndrome). DEFINITIVE: Clinical diagnosis. Exclude stroke, Lyme disease, and middle ear infection.

INVESTIGATIONS

BEDSIDE/ Full cranial nerve

TREATMENT

Oral Prednisolone (steroids) started within 72 hours of onset. Eye care is critical: lubricating drops and taping eye closed at night to prevent corneal ulcers.

— : Forehead sparing (patient CAN wrinkle forehead) indicates an Upper Motor Neuron lesion (i.e., a Stroke), NOT Bell's palsy.

": A temporary weakness of the nerve controlling your facial muscles, usually caused by a viral inflammation. Steroids speed up recovery, and it's vital to keep your eye protected if it won't close."

DDx: Benign Eyelid Disorders (e.g., Chalazion, Stye/

Brain Abscess

HISTORY

of ear/sinus infection, head trauma, or endocarditis.

EXAMINATION

including fundoscopy. DEFINITIVE: Urgent CT Head with contrast (shows a classic 'ring-enhancing lesion'). MRI Head is gold standard. Blood cultures.

INVESTIGATIONS

BEDSIDE/GP: Full neurological

TREATMENT

Urgent neurosurgical referral for burr hole aspiration/drainage. Prolonged course (6-8 weeks) of IV antibiotics (e.g., Ceftriaxone + Metronidazole).

— : Signs of raised intracranial pressure (reduced consciousness, bradycardia, hypertension). DO NOT perform a lumbar puncture (risk of fatal brain herniation).

": A collection of pus inside the brain, usually spreading from another infection like a severe earache. It causes headaches and weakness, requiring a hospital stay for strong antibiotics and sometimes surgery to drain it."

Brain Metastases

HISTORY

of cancer (especially lung, breast, or melanoma).

EXAMINATION

Focal neurological deficits depending on location (e.g., hemiparesis, visual field loss). Papilloedema on fundoscopy.

INVESTIGATIONS

BEDSIDE/GP: Full neurological exam. DEFINITIVE: MRI Head with contrast is the gold standard (often shows multiple lesions). CT Head with contrast if MRI contraindicated.

TREATMENT

High-dose oral Dexamethasone to reduce surrounding brain swelling (oedema). Anti- epileptics if seizing. Palliative radiotherapy or occasionally surgical resection.

— : Status epilepticus. Rapid neurological deterioration due to raised ICP.

": Cancer that has spread from another part of the body (like the lungs or breast) into the brain. It causes pressure inside the skull. We use steroids to reduce the swelling and ease the headaches."

Cerebral Palsy

HISTORY

of premature birth or difficult delivery (hypoxic-ischaemic encephalopathy).

EXAMINATION

Spasticity (increased tone, brisk reflexes), ataxia, or dyskinesia (involuntary movements). Persistent primitive reflexes (e.g., Moro reflex beyond 6 months).

INVESTIGATIONS

BEDSIDE/ Developmental assessment (check gross/fine motor skills, speech, and social BEDSIDE/GP: milestones). DEFINITIVE: MRI brain (to identify the structural brain lesion, e.g., periventricular leukomalacia).

TREATMENT

MDT approach. Physiotherapy, Occupational therapy, SALT. Medical: Baclofen or Diazepam for severe muscle spasticity. Botulinum toxin injections.

— : Loss of previously acquired milestones indicates a progressive neurological disorder (like a metabolic/genetic disease), NOT cerebral palsy (which is a static, non-progressive injury).

": A group of lifelong conditions affecting movement and coordination, caused by damage to the brain before, during, or shortly after birth. While the brain damage doesn't get worse, the physical symptoms require ongoing physiotherapy."

Cluster Headache

HISTORY

Strictly unilateral, excruciating pain around the eye. Lasts 15-180 minutes. Occurs in 'clusters' (e.g., 1-2 times a day for weeks, then disappears for months). Common in male smokers.

EXAMINATION

During attack: Agitated/restless pacing. Ipsilateral autonomic signs: watery eye, nasal congestion, eyelid drooping (Horner's syndrome), facial sweating.

INVESTIGATIONS

BEDSIDE/GP: Assess cranial nerves to rule out structural pathology. DEFINITIVE: Clinical diagnosis. MRI brain if atypical or first presentation to rule out secondary causes.

TREATMENT

Acute: 100% High-flow Oxygen (12L/min via non-rebreathe mask) AND Subcutaneous Triptan (e.g., Sumatriptan). Prophylaxis: Verapamil.

— : New onset cluster-like headache in >50s, signs of raised ICP. Must rule out glaucoma and carotid artery dissection.

": One of the most painful headache conditions known, sometimes called 'suicide headaches'. It causes severe pain behind one eye with a runny nose. Standard painkillers don't work; we use pure oxygen and injections."

Delirium

HISTORY

Acute, fluctuating change in cognition, inattention, altered consciousness, hallucinations, agitation or extreme lethargy.

EXAMINATION

Disorientation, fluctuating GCS, hyperactive (agitated) or hypoactive (sleepy). Search for underlying cause (infection, retention).

INVESTIGATIONS

BEDSIDE/ 4AT Score (Alertness, AMT4, Attention, Acute change). Urine dipstick, vital signs, BEDSIDE/GP: bladder scan. DEFINITIVE: Bloods (FBC, U&Es, CRP, Calcium, TFTs, LFTs) to find cause. CXR, blood cultures if infection suspected.

TREATMENT

Treat underlying cause (PINCH ME: Pain, Infection, Nutrition, Constipation, Hydration, Meds, Environment). Reorientation, avoid sedatives if possible.

— : Sudden headache or focal neurological signs (rule out stroke/intracranial bleed).

": An acute state of confusion often caused by a physical illness like an infection or dehydration. It usually improves when the physical illness is treated."

DDx: Dementia, Psychosis (Schizophrenia), Wernicke's Encephalopathy, Stroke. Acute, sudden onset with fluctuating consciousness levels over hours/days. Dementia is chronic and stable. Inattention is a hallmark. No focal neurological signs (like unilateral weakness) rules out stroke. Urinalysis, CXR, and bloods (CRP, Calcium) often identify the underlying trigger (e.g., infection, metabolic derangement). CT Head rules out intracranial bleed/stroke.

Dementia (Alzheimer's)

HISTORY

from family/carers is crucial. DEFINITIVE: Dementia screen bloods (B12, Folate, TFTs, Syphilis) to rule out reversible causes. CT/ MRI Head shows medial temporal lobe atrophy.

EXAMINATION

Usually physically normal in early stages. Positive findings on cognitive assessments (e.g., 10-CS, ACE-III, MoCA).

INVESTIGATIONS

BEDSIDE/GP: Formal cognitive assessment. Collateral

TREATMENT

Acetylcholinesterase inhibitors (Donepezil, Rivastigmine). Advance care planning, social care support.

— : Sudden/rapid onset of confusion and hallucinations (this strongly points to Delirium due to infection/illness, not Dementia).

": A progressive physical disease of the brain that causes memory loss and confusion. Medications can temporarily help symptoms but cannot cure the disease."

Encephalitis

HISTORY

of recent viral illness, cold sores (HSV), or travel.

EXAMINATION

Fever, altered GCS, focal neurological deficits (e.g., aphasia, weakness), psychiatric features. Less prominent meningism than meningitis.

INVESTIGATIONS

BEDSIDE/GP: Neurological exam, Vital signs (fever). DEFINITIVE: Lumbar Puncture (CSF for viral PCR, particularly HSV). MRI Brain (temporal lobe swelling in HSV). EEG.

TREATMENT

with antiviral drips."

— : Status epilepticus, raised intracranial pressure (reduced GCS, bradycardia, hypertension).

": A severe viral infection causing inflammation of the brain tissue itself. It causes confusion and seizures and requires immediate hospital"

DDx: Meningitis, Delirium (e.g. from UTI/ sepsis), Brain Abscess, Stroke. Altered behaviour, confusion, seizures. Less prominent neck stiffness/ photophobia than meningitis. Focal neurological signs or seizures support encephalitis over simple delirium. Lumbar Puncture PCR for HSV. MRI brain shows temporal lobe swelling (HSV), ruling out stroke or abscess.

Epilepsy

HISTORY

is vital (video of event if possible). 12-lead ECG (to rule out cardiac BEDSIDE/GP: syncope/Long QT). DEFINITIVE: EEG (electroencephalogram). MRI Brain (to rule out structural lesions/tumours).

EXAMINATION

Usually normal between episodes. Check for signs of underlying cause (e.g., neurocutaneous syndromes, focal weakness).

INVESTIGATIONS

BEDSIDE/ Collateral

TREATMENT

Antiepileptic drugs (AEDs) depending on seizure type: Sodium Valproate (NOT in women of childbearing age), Levetiracetam, Lamotrigine, Carbamazepine. Driving advice.

— : Status Epilepticus (seizure >5 mins or incomplete recovery between seizures). A medical emergency requiring PR Diazepam/IV Lorazepam.

": A condition affecting the brain's electrical signals, causing repeated seizures or 'fits'. Daily medication can help stabilize the signals and prevent them."

DDx: Vasovagal Syncope, Cardiac Arrhythmia/ Syncope, NonEpileptic Attack Disorder (NEAD), Hypoglycaemia. Aura before the event, tongue biting (usually lateral), prolonged postictal confusion. No classic 'fainting' prodrome like sweating/tunnel vision (Vasovagal). Look for injuries sustained during the fall. Normal cardiovascular exam. ECG is normal (rules out Long QT or arrhythmias). Capillary blood glucose is normal (rules out hypo). EEG shows epileptiform discharges.

Essential Tremor

HISTORY

Postural and action tremor (worse when holding arms out or using hands, e.g., holding a cup). Improves with alcohol.

Family history common.

EXAMINATION

Bilateral, symmetrical upper limb tremor. Absent at rest. No rigidity, bradykinesia, or gait abnormalities (unlike Parkinson's).

INVESTIGATIONS

BEDSIDE/GP: Ask patient to draw a spiral or pour water (demonstrates action tremor). DEFINITIVE: Clinical diagnosis. TFTs to rule out hyperthyroidism.

TREATMENT

Propranolol (Beta-blocker) or Primidone if symptoms are disabling.

— : Unilateral tremor at rest (Parkinson's), intention tremor with past-pointing (Cerebellar disease/MS).

": A common nervous system condition causing your hands to shake when you try to use them. It's not Parkinson's, and medication can dampen the shaking if it bothers you."

DDx: Parkinson's Disease, Hyperthyroidism, Enhanced Physiological Tremor (Anxiety/Caffeine/ Salbutamol). Action/postural tremor (worse when holding a cup) that often IMPROVES with alcohol. Parkinson's is a resting tremor. Bilateral and symmetrical. NO rigidity or bradykinesia (definitively rules out Parkinson's). Normal TFTs rule out hyperthyroidism. Clinical diagnosis.

Febrile Convulsion

HISTORY

Child aged 6 months to 5 years. A short, generalised tonic-clonic seizure occurring during an acute illness with a high fever (e.g., viral upper respiratory infection, otitis media). Lasts <5 minutes.

EXAMINATION

During fit: unconscious, stiffening, and jerking. Post-ictal: drowsy but completely recovers to neurological baseline within an hour.

INVESTIGATIONS

BEDSIDE/ Measure temperature. Check ABCDE. Look for the source of infection (ears, throat, BEDSIDE/GP: chest). DEFINITIVE: Usually a clinical diagnosis. Bloods/urine only to find the infection source. Lumbar puncture ONLY if meningitis is suspected.

TREATMENT

During seizure: placing child in recovery position, wait it out. If lasts >5 mins: PR Diazepam or Buccal Midazolam. Treat underlying fever with Paracetamol/Ibuprofen.

— : Complex febrile seizure (lasts >15 mins, focal features, or repeats within 24 hours) or any signs of meningitis (neck stiffness, non-blanching rash).

": A seizure caused by a sudden spike in body temperature, very common in young children. While incredibly frightening to watch, simple ones are harmless and don't cause brain damage or mean the child has epilepsy."

DDx: Meningitis/ Encephalitis, Epilepsy, Hypoglycaemia. Occurs strictly during a rapidly rising fever in a child aged 6 months to 5 years. Complete recovery within 1 hour. Child is fully alert postictally. NO neck stiffness, photophobia, or nonblanching rash (rules out meningitis). Normal blood glucose rules out hypoglycaemia. Lumbar puncture is only performed if CNS infection is suspected.

Meningitis (Bacterial)

HISTORY

Acute onset of severe headache, fever, neck stiffness, photophobia (dislike of bright lights), vomiting, altered mental state. In infants: poor feeding, bulging fontanelle.

EXAMINATION

Fever, neck stiffness. Positive Kernig's sign, positive Brudzinski's sign. Non-blanching purpuric rash (Meningococcal septicaemia).

INVESTIGATIONS

BEDSIDE/GP: Tumbler test (glass test) for non-blanching rash. Immediate ABCDE assessment. DEFINITIVE: Lumbar Puncture (CSF shows high neutrophils, low glucose, high protein) UNLESS signs of raised ICP. Blood cultures, PCR.

TREATMENT

Pre-hospital/GP: IM/IV Benzylpenicillin immediately if rash present. Hospital: IV Ceftriaxone. Dexamethasone to prevent hearing loss.

— : Signs of raised intracranial pressure (reduced GCS, focal neurology, bradycardia). DO NOT perform an LP if these are present (risk of brain herniation).

": A life-threatening bacterial infection of the lining of the brain and spinal cord. It causes a stiff neck, fever, and sometimes a rash that doesn't fade under a glass. Needs urgent hospital drips."

DDx: Encephalitis, Subarachnoid Haemorrhage (SAH), Brain Abscess, Sepsis. Rapid onset headache, neck stiffness, and photophobia. SAH is 'sudden onset' thunderclap headache without initial fever. Non-blanching purpuric rash (Meningococcal). Positive Kernig's and Brudzinski's signs. Lumbar Puncture (LP) shows cloudy CSF with high WBC/ Protein and low Glucose (Bacterial). Blood PCR rules in the organism.

Migraine

HISTORY

Recurrent, severe, unilateral, throbbing headaches lasting 4-72 hours. Associated with nausea, vomiting, photophobia, and phonophobia. May have an 'aura' (e.g., visual zig-zags) before onset.

EXAMINATION

. No neck stiffness or fever (rules out Meningitis). Clinical diagnosis. Normal CT Head rules out bleeds/tumours if

INVESTIGATIONS

BEDSIDE/GP: Fundoscopy and neuro exam to rule out secondary headache causes. DEFINITIVE: Clinical diagnosis. Brain imaging (MRI/CT) only if

TREATMENT

Acute: Oral Triptan (e.g., Sumatriptan) + NSAID/Paracetamol. Antiemetics. Prophylaxis (if >4 days/month): Propranolol, Topiramate, or Amitriptyline.

— are present.

": A complex neurological condition causing severe, throbbing headaches often with sickness and light sensitivity. Painkillers and specific 'triptan' tablets help abort attacks."

DDx: Tension Headache, Cluster Headache, Subarachnoid Haemorrhage (SAH), Meningitis. Throbbing, unilateral, with nausea/photophobia. Gradual onset (not the sudden 'thunderclap' of SAH). Not a tight band (Tension). Not excruciating pain with a watery eye (Cluster). Normal neurological

Motor Neurone Disease (MND / ALS)

HISTORY

Progressive, painless muscle weakness. Dropping objects, tripping over (foot drop), slurred speech (dysarthria), swallowing difficulties (dysphagia). NO sensory loss (they can feel everything).

EXAMINATION

Mixed Upper and Lower Motor Neuron signs in the SAME limb. LMN: muscle wasting, fasciculations (twitching). UMN: brisk reflexes, upgoing plantars, spasticity.

INVESTIGATIONS

BEDSIDE/GP: Full neurological exam. Observe for tongue fasciculations. DEFINITIVE: Clinical diagnosis by a neurologist. Electromyography (EMG) shows typical denervation patterns. MRI to exclude structural spine/brain disease.

TREATMENT

MDT approach (SALT, Physio, Dietician, Palliative care). Riluzole (can extend life by a few months). Non-Invasive Ventilation (NIV) for respiratory muscle weakness.

— : Rapid progression to respiratory failure. Dysphagia leading to aspiration pneumonia. No cure; fatal usually within 2-4 years.

": A devastating, progressive disease that destroys the nerves controlling muscles, leading to severe weakness, swallowing, and breathing problems. Sensation and memory remain perfectly intact."

Multiple Sclerosis (MS)

HISTORY

Young adult (20-40, female > male). Relapsing-remitting neurological symptoms: optic neuritis (painful loss of vision), limb numbness/tingling, weakness, unsteadiness, urinary incontinence.

EXAMINATION

. DEFINITIVE: MRI Brain and Cervical Spine (shows demyelinating plaques). Lumbar Puncture (oligoclonal bands in CSF not found in serum).

INVESTIGATIONS

BEDSIDE/GP: Full neurological, cranial nerve, and ophthalmology

TREATMENT

Acute relapses: High-dose oral or IV Methylprednisolone. Disease-modifying therapies (DMTs) like Ocrelizumab or Natalizumab. Symptom management.

— : Rapidly progressive neurological decline. Beware of 'pseudo-relapses' caused by an underlying infection (e.g., UTI).

": An autoimmune disease where the immune system mistakenly attacks the protective coating (myelin) around nerves in the brain and spine, disrupting signals and causing various symptoms."

DDx: Stroke, Vitamin B12 Deficiency, SLE (Neurolupus), Brain Tumour. Symptoms disseminated in 'Time and Space' (multiple episodes in different body parts). Optic neuritis (painful eye movement/ vision loss). Internuclear Ophthalmoplegia (INO). Focal neuro deficits that resolve and recur. MRI Brain/Spine shows 'periventricular plaques' or 'Dawson's fingers'. LP shows CSF Oligoclonal bands not present in serum.

Muscular Dystrophies (e.g., Duchenne)

HISTORY

Young boy (X-linked recessive). Delayed walking, frequent falls. Difficulty getting up from the floor. Progressive muscle weakness.

EXAMINATION

Gowers' sign (uses hands to 'walk' up his own legs to stand from the floor). Pseudohypertrophy of the calves (they look large but are filled with fat/scar tissue, not muscle). Proximal muscle weakness.

INVESTIGATIONS

BEDSIDE/GP: Observe the child standing up from the floor. DEFINITIVE: Creatine Kinase (CK) blood test is massively elevated (>10,000). Genetic testing confirms dystrophin gene mutation. Muscle biopsy.

TREATMENT

No cure. MDT approach (Physio, OT). Oral Corticosteroids delay progression. Eventually requires wheelchair and Non-Invasive Ventilation (NIV) for respiratory failure.

— : Fatal condition; patients usually die of respiratory failure or dilated cardiomyopathy in their 20s/30s.

": A genetic disease affecting boys that causes muscles to gradually weaken and break down over time. It starts with difficulty walking and eventually affects the breathing and heart muscles."

Myasthenia Gravis

HISTORY

Muscle weakness that gets WORSE with use (fatigability) and better with rest. Worse at the end of the day. Ptosis (drooping eyelids), diplopia (double vision), dysphagia, chewing fatigue.

EXAMINATION

Ask patient to look up continuously for 1 minute: watch for progressive eyelid drooping (ptosis). Normal reflexes and sensation.

INVESTIGATIONS

BEDSIDE/GP: Tensilon (Edrophonium) test (historical) or Ice pack test (ptosis improves with ice). DEFINITIVE: Bloods: Anti-AChR (Acetylcholine Receptor) antibodies. EMG (decremental response to repetitive nerve stimulation). CT Thorax (to look for a Thymoma).

TREATMENT

Symptomatic: Pyridostigmine (acetylcholinesterase inhibitor). Immunosuppression: Steroids, Azathioprine. Thymectomy.

— : Myasthenic Crisis: Severe weakness of the respiratory muscles leading to acute respiratory failure. Requires emergency intubation/NIV, IV Immunoglobulins, or Plasmapheresis.

": An autoimmune disease where the connections between nerves and muscles are blocked by antibodies. Your muscles tire out very quickly when used but recover after resting. Treated with medication to boost nerve signals."

DDx: Lambert-Eaton Syndrome, Brainstem Stroke, Multiple Sclerosis. Fatiguable weakness (worse at the end of the day or after exercise). Lambert-Eaton weakness *improves* with exercise. Ptosis (drooping eyelid) that worsens with upward gaze. Normal reflexes and sensation. Positive Acetylcholine Receptor (AChR) antibodies. Edrophonium (Tensilon) test gives immediate brief improvement. Myeloproliferative Disorders (Polycythaemia Vera,

Neuropathies (Guillain-Barré Syndrome)

HISTORY

of a recent GI infection (typically Campylobacter jejuni) or respiratory tract infection 1-3 weeks prior. Symmetrical, progressive weakness starting in the feet and legs, ascending upwards to the arms and face. Tingling in hands/feet.

EXAMINATION

Lower Motor Neuron signs: Flaccid weakness (reduced tone), profoundly ABSENT reflexes (areflexia) in the affected limbs. Sensation is often relatively preserved compared to the severe motor weakness.

INVESTIGATIONS

BEDSIDE/Regular monitoring of Forced Vital Capacity (FVC) using a spirometer at the bedside to BEDSIDE/GP: check for respiratory muscle weakness. DEFINITIVE: Lumbar Puncture: shows classic 'cytoalbuminologic dissociation' (high protein, normal white cell count). Nerve Conduction Studies show slowed conduction (demyelination).

TREATMENT

Medical Emergency. IV Immunoglobulins (IVIG) or Plasmapheresis. Intensive care support for mechanical ventilation if respiratory muscles fail.

— : Respiratory failure and autonomic dysfunction (dangerous swings in blood pressure and heart rate) can occur rapidly and are the main causes of death.

": A rare condition where your immune system attacks your peripheral nerves after a minor infection. It causes rapid weakness starting in the legs and moving up the body. Patients need close hospital monitoring as it can affect breathing muscles, but most eventually recover."

Parkinson's Disease

HISTORY

of anti-psychotic use. Classic triad: Tremor, Rigidity (cogwheel), and Bradykinesia (slow movements). Shuffling gait and expressionless face. Clinical diagnosis. DaTscan can help if the diagnosis is uncertain to distinguish from Essential Tremor.

EXAMINATION

. DEFINITIVE: A clinical diagnosis made by a specialist. A trial of Levodopa (symptoms should improve). SPECT scan (DaTscan) if diagnosis is in doubt.

INVESTIGATIONS

BEDSIDE/GP: Assess gait, handwriting, and perform full neurological

TREATMENT

Dopamine replacement therapy: Levodopa (co-careldopa), Dopamine agonists (Ropinirole), MAO-B inhibitors (Rasagiline). Physiotherapy. Meds must be given exactly on time in hospital.

— : Early frequent falls, early dementia, rapid progression, downward gaze palsy (Suggests 'Parkinson-Plus' syndromes like PSP or MSA).

": A progressive brain disorder where the brain slowly stops producing dopamine. This causes tremors, stiffness, and slow movement. Tablets replace the dopamine to improve symptoms."

DDx: Essential Tremor, Drug-induced Parkinsonism, Vascular Parkinsonism. Unilateral onset. Resting tremor ('pill-rolling'). No

Radiculopathy / Sciatica

HISTORY

Unilateral shooting, burning, or 'electric shock' pain radiating down the leg (past the knee) or arm. Associated with numbness, tingling, or weakness in a specific dermatome. Often triggered by lifting/bending.

EXAMINATION

of the limbs. Assess gait (e.g., foot drop). DEFINITIVE: Clinical diagnosis initially. MRI Spine if symptoms persist >6 weeks, or if there are

INVESTIGATIONS

BEDSIDE/GP: Detailed neurological

TREATMENT

Conservative: Keep active, physiotherapy, neuropathic analgesia (Amitriptyline, Duloxetine). Epidural steroid injections. Surgery (Microdiscectomy) if severe/progressive weakness.

— : Cauda Equina Syndrome: Saddle anaesthesia (numbness around genitals/anus), recent onset urinary retention/incontinence, faecal incontinence, bilateral leg weakness. An absolute neurosurgical emergency.

": A nerve root in your spine is being pinched, often by a bulging ('slipped') disc. The brain feels this as shooting pain, numbness, or weakness all the way down the arm or leg the nerve supplies. It usually improves with time and physiotherapy."

Raised Intracranial Pressure (Idiopathic/General)

HISTORY

Headache that is worse in the morning, worse when lying flat, coughing, or straining. Associated with nausea, projectile vomiting, and transient visual obscurations (vision briefly goes black when standing).

EXAMINATION

Papilloedema on fundoscopy (swollen optic discs). Reduced visual fields (enlarged blind spot). Unilateral or bilateral 6th nerve palsy (inability to look outwards, causing double vision).

INVESTIGATIONS

BEDSIDE/GP: Fundoscopy is MANDATORY. Check visual acuity and visual fields. DEFINITIVE: Urgent MRI or CT Head (to rule out a space-occupying lesion like a tumour). If clear, Lumbar Puncture with pressure measurement (diagnostic for Idiopathic Intracranial Hypertension).

TREATMENT

Treat underlying cause if mass lesion. For Idiopathic (IIH): Weight loss (highly effective), Acetazolamide to reduce CSF production. Surgical shunting or optic nerve sheath fenestration if vision is threatened.

— : Rapidly deteriorating GCS, irregular breathing, and bradycardia with hypertension (Cushing's triad) indicates imminent fatal brain herniation (coning).

": The pressure inside your skull is too high. This can be due to a growth, bleeding, or sometimes just too much brain fluid (Idiopathic). It causes morning headaches and pushes on the back of the eyes, which can damage your vision if not treated."

Spinal Fracture / Injury

HISTORY

Major trauma (RTC, fall from height) or minor trauma in elderly/osteoporotic patients. Severe, localised back/neck pain.

May have numbness, tingling, or inability to move limbs.

EXAMINATION

Midline bony tenderness on palpation of the spine. Step deformity or gap in the spinous processes. Neurological deficits (weakness, absent reflexes, priapism in severe trauma).

INVESTIGATIONS

BEDSIDE/ Immobilise the spine IMMEDIATELY (cervical collar, blocks, spinal board). Do not move BEDSIDE/GP: the patient without log-rolling. DEFINITIVE: Trauma CT scan of the spine (head/neck/thorax/abdomen/pelvis). Plain X-rays if low- impact.

TREATMENT

Strict spinal immobilization. Analgesia. Neurosurgery/Orthopaedic referral for surgical fixation or conservative management with rigid bracing (e.g., TLSO brace).

— : Neurogenic shock (hypotension with BRADYCARDIA) due to loss of sympathetic tone in high spinal cord injuries. Requires ICU support.

": A break in one of the bones in your spine. We must keep you absolutely flat and still using special boards and collars to prevent the broken bone from moving and slicing through the spinal cord, which would cause paralysis."

Subarachnoid Haemorrhage (SAH)

HISTORY

Sudden, explosive, severe 'thunderclap' headache reaching maximum intensity within minutes. 'The worst headache of my life'. Photophobia, neck stiffness, vomiting, collapse/seizure.

EXAMINATION

Meningism (neck stiffness, positive Kernig's sign). Reduced GCS. Focal neurological signs. Retinal haemorrhages on fundoscopy.

INVESTIGATIONS

BEDSIDE/GP: Immediate ABCDE and GCS assessment. DEFINITIVE: Urgent non-contrast CT Head (high sensitivity in first 6 hours). If CT is normal but high suspicion, do Lumbar Puncture at 12 hours (xanthochromia/yellow CSF). CT Angiogram to find aneurysm.

TREATMENT

Emergency neurosurgery referral. Coiling or clipping of the ruptured aneurysm. Oral Nimodipine (calcium channel blocker) to prevent cerebral vasospasm.

— : High risk of re-bleeding in the first few days (often fatal). Vasospasm causing delayed ischaemic strokes.

": A dangerous bleed on the surface of the brain, usually from a burst weakened blood vessel (aneurysm). It causes a sudden, extreme headache and requires urgent specialist brain surgery."

DDx: Meningitis, Migraine, Intracerebral Bleed, Tension Headache. Sudden onset 'thunderclap' headache (max intensity at <1 minute). Often occurs during exertion. Neck stiffness (meningism) and reduced GCS. No focal deficit usually (rules out stroke) unless associated with an aneurysm. Non-contrast CT Head shows hyperdensity in basal cisterns/ sulci. If CT is negative after 6 hours, Lumbar Puncture for Xanthochromia is required to rule out SAH.

Subdural Haemorrhage

HISTORY

of minor head trauma (often weeks ago, which they may have forgotten). Fluctuating confusion, gradual cognitive decline, headaches, mild unilateral weakness.

EXAMINATION

Fluctuating GCS. Mild focal neurological deficits. May present identically to dementia, but with a faster onset.

INVESTIGATIONS

BEDSIDE/GP: Full neurological exam. Ask family about recent falls. DEFINITIVE: Non-contrast CT Head: shows a classic 'crescent-shaped' collection of blood, which crosses skull sutures. (Acute = white/hyperdense, Chronic = dark/hypodense).

TREATMENT

If small and asymptomatic: conservative watch and wait. If symptomatic or midline shift on CT: Neurosurgical evacuation via Burr Holes.

— : Progressive drowsiness and neurological decline indicating dangerous pressure on the brain.

": A slow bleed between the brain and the skull, usually from fragile veins tearing after a minor bump to the head in older people. It causes confusion that comes and goes. We can drain the fluid through a small hole in the skull."

Tension Headache

HISTORY

is typical and exam is normal.

EXAMINATION

. Pericranial muscle tenderness (scalp, neck, and shoulders may feel tight or tender to palpation).

INVESTIGATIONS

BEDSIDE/GP: Fundoscopy and neuro exam to rule out serious pathology. DEFINITIVE: Clinical diagnosis. No imaging required if

TREATMENT

Simple analgesia (Paracetamol, Ibuprofen). Reassurance. Stress management, physiotherapy for neck tension, adequate hydration/sleep. Prophylaxis (low dose Amitriptyline) if chronic (>15 days/month).

— for SAH or meningitis.

": The most common type of headache, feeling like a tight band squeezing the head. It's often linked to stress or tight neck muscles. It is not dangerous and responds well to simple painkillers and relaxation."

Trigeminal Neuralgia

HISTORY

Unilateral, severe, sharp, 'electric shock-like' pain in the face (usually lower jaw or cheek). Attacks last seconds to minutes. Triggered by light touch, washing face, shaving, chewing, or cold wind.

EXAMINATION

of the face is completely NORMAL (no sensory loss, no facial weakness). If there is sensory loss, it is NOT classic trigeminal neuralgia.

INVESTIGATIONS

BEDSIDE/GP: Test cranial nerves V and VII carefully. DEFINITIVE: Clinical diagnosis. MRI Brain to rule out secondary causes (e.g., Multiple Sclerosis, tumour pressing on the nerve) especially if patient is <40 or has atypical features.

TREATMENT

First line: Carbamazepine (anti-epileptic drug). Standard painkillers (Paracetamol/Opioids) are completely ineffective. Surgical: Microvascular decompression if medical therapy fails.

— : Pain accompanied by numbness/weakness, or occurring in a young patient, warrants urgent investigation for a structural brain lesion or MS.

": A nerve condition causing excruciating, sudden, shock-like pain in one side of the face, triggered by just touching the skin. Standard painkillers don't work, but specific nerve-calming tablets are very effective."

Vitamin B12 and/or Folate Deficiency

HISTORY

Profound fatigue, breathlessness, 'pins and needles' in hands/feet, sore red tongue.

EXAMINATION

Lemon-yellow pallor, loss of vibration sense in feet.

INVESTIGATIONS

BEDSIDE/GP: Neurological exam. DEFINITIVE: FBC (Macrocytic anaemia), Low B12/Folate. Intrinsic factor antibodies.

TREATMENT

B12 injections BEFORE Folate tablets to prevent nerve damage.

— : Subacute combined degeneration of the spinal cord (irreversible nerve damage if missed).

": Lack of vitamins needed for blood and nerves, causing extreme tiredness and tingling. Treated easily with injections or tablets."

Wernicke's

HISTORY

Visual field: bumping into things on one side. Syncope: fainting triggered by standing/pain/ stress, quick recovery.

Wernicke's: alcoholic with sudden confusion and wobbliness.

EXAMINATION

Visual field: Hemianopia on confrontation testing. Syncope: normal exam between faints. Wernicke's: Confusion, Ataxia, Nystagmus (eye flickering).

INVESTIGATIONS

BEDSIDE/GP: Visual testing. Syncope: Lying/standing BP, ECG. Wernicke's: Neuro exam. DEFINITIVE: Visual fields: Perimetry, MRI Brain. Syncope: Clinical, tilt-table. Wernicke's: Clinical diagnosis, MRI.

TREATMENT

Visual fields: Treat underlying stroke/tumour. Syncope: Reassurance, avoid triggers. Wernicke's: EMERGENCY IV Pabrinex (Thiamine) BEFORE any glucose.

— : Syncope during exercise (cardiac risk). Wernicke's must be treated instantly or it progresses to permanent, irreversible Korsakoff's dementia.

": Losing half your vision is usually due to a stroke or brain tumour. Simple fainting is harmless and happens when your blood pressure drops suddenly. Wernicke's is a severe brain injury from vitamin lack in alcoholics, needing urgent drips."

Endocrinology & Metabolic

21 conditions

Chronic fatigue, weakness, weight loss, salt craving, dizziness on standing.

EXAMINATION

Postural hypotension. Hyperpigmentation (palmar creases, buccal mucosa).

INVESTIGATIONS

BEDSIDE/GP: Lying and standing blood pressure. DEFINITIVE: U&Es (hyponatraemia, hyperkalaemia). 9am Serum Cortisol (low). Short Synacthen test.

TREATMENT

Lifelong Hydrocortisone & Fludrocortisone. 'Sick day rules' (double steroid dose).

— : Addisonian Crisis (sudden severe weakness, vomiting, shock). Emergency!

": Adrenal glands stop making stress hormones. Treatable with lifelong daily hormone tablets."

DDx: Depression, Chronic Fatigue Syndrome, Hyponatraemia (other causes), Anorexia. Profound fatigue, weight loss, salt craving, and nausea/abdominal pain. Hyperpigmentation (buccal Hyponatraemia and mucosa and skin creases) Hyperkalaemia (U&Es). Short and postural hypotension. Synacthen Test (Gold Standard) showing failed cortisol rise confirms the diagnosis.

Cushing's Syndrome

HISTORY

for exogenous steroids. DEFINITIVE: Overnight Dexamethasone Suppression Test (cortisol will not suppress). 24h urinary free cortisol. ACTH levels to determine source (Pituitary vs Adrenal).

EXAMINATION

Moon face, buffalo hump (fat pad on back of neck), central obesity, purple abdominal striae (stretch marks), thin skin, hypertension.

INVESTIGATIONS

BEDSIDE/GP: Check blood pressure, BMI. Check medication

TREATMENT

Exogenous: Gradually taper down steroid meds (DO NOT stop abruptly). Endogenous: Surgical removal of the responsible tumour (Pituitary or Adrenal).

— : Sudden withdrawal of long-term steroids can trigger a life-threatening Addisonian/Adrenal crisis.

": Your body has too much of the stress hormone 'cortisol', usually from taking steroid tablets for a long time. It causes weight gain around the middle and a puffy face. We must reduce the tablets very slowly."

DDx: PCOS, Simple Obesity, Depression (Pseudo-Cushing's). Weight gain, easy bruising, and muscle weakness (difficulty rising from a chair). Moon face, buffalo hump, and **purple striae** (>1cm wide). Proximal myopathy. 24-hour urinary free cortisol or Overnight Dexamethasone Suppression Test. High-dose suppression/IPSS rules in/out Pituitary origin (Cushing's Disease).

Diabetes in Pregnancy (Gestational)

HISTORY

Often asymptomatic. Macrosomic baby on previous scans, polyhydramnios, family hx of diabetes, high BMI.

EXAMINATION

. gestation. GDM usually presents after 24 weeks. HbA1c >48 mmol/mol very early in pregnancy strongly suggests pre-existing diabetes. OGTT at 24-28 weeks confirms GDM.

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick (glycosuria). Capillary blood glucose. DEFINITIVE: Oral Glucose Tolerance Test (OGTT) at 24-28 weeks (Fasting >5.6, or 2-hour >7.8 mmol/L).

TREATMENT

Diet and lifestyle. If targets not met: Metformin. If still high or severe macrosomia: Insulin.

— : Hypoglycaemia (if on insulin), pre-eclampsia (often co-exists with GDM).

": High blood sugar that develops during pregnancy because your body can't produce enough extra insulin. Treated with diet and sometimes medication to protect the baby."

DDx: Pre-existing Type 1 or Type 2 Diabetes, Transient glycosuria of pregnancy. Pre-existing diabetes is Usually normal diagnosed before 20 weeks

Diabetes Insipidus

HISTORY

Extreme polyuria (large volumes of pale urine), intense polydipsia (craving ice water), nocturia.

EXAMINATION

.

INVESTIGATIONS

BEDSIDE/GP: Fluid balance chart, Urine dipstick (very pale, low specific gravity). DEFINITIVE: Serum osmolality (high) and urine osmolality (inappropriately low). Water deprivation test.

TREATMENT

Cranial DI: Desmopressin (synthetic ADH). Nephrogenic DI: Treat underlying cause, Thiazide diuretics, low salt diet.

— : Severe hypernatraemia leading to seizures, coma, or death if unable to drink water.

": A condition where the kidneys can't retain water, causing you to pee large amounts and feel extremely thirsty. It's an issue with a brain hormone, not sugar."

DDx: Diabetes Mellitus, Psychogenic Polydipsia. Polyuria and intense thirst. Cranial often follows head trauma/surgery. Usually normal unless dehydrated. Water Deprivation Test. Desmopressin administration: If urine osmolality increases, it's Cranial. If it remains low, it's Nephrogenic.

Diabetic Ketoacidosis (DKA)

HISTORY

Polyuria, polydipsia, weight loss, nausea, vomiting, severe abdominal pain, breathlessness, confusion. Usually Type 1

Diabetes.

HISTORY

of insulin omission or concurrent infection. Kussmaul breathing (deep sighing breaths) and peardrop breath (acetone) are classic for DKA and absent in HHS. VBG/ABG shows severe metabolic acidosis (pH <7.3). Blood ketones are high (>3.0 mmol/L). In HHS, glucose is much higher (>30) but ketones and acidosis are minimal.

EXAMINATION

Kussmaul breathing (deep, sighing respirations), 'pear drop' (ketone) breath smell, tachycardia, dehydration, altered GCS.

INVESTIGATIONS

BEDSIDE/ Capillary blood glucose (>11 mmol/L or known DM), Capillary/Urine ketones (High BEDSIDE/GP: >3.0). DEFINITIVE: Venous blood gas (VBG) shows metabolic acidosis (pH < 7.3, Bicarbonate < 15). U&Es (monitor potassium).

TREATMENT

."

— : Cerebral oedema (headache, falling GCS, bradycardia), severe hypokalaemia causing arrhythmias.

": A dangerous complication of diabetes where lack of insulin causes the body to break down fat, producing acidic ketones. Requires urgent hospital drip"

DDx: Hyperosmolar Hyperglycaemic State (HHS), Alcoholic Ketoacidosis, Starvation Ketoacidosis. Usually occurs in Type 1 Diabetics (HHS is usually Type 2).

Diabetic Nephropathy

HISTORY

Often asymptomatic until late stages (CKD). Foamy urine, ankle swelling, fatigue, known long-standing diabetes.

EXAMINATION

Hypertension, peripheral oedema, signs of other diabetic complications (retinopathy, neuropathy).

INVESTIGATIONS

BEDSIDE/GP: Blood pressure check, Urine dipstick (proteinuria). DEFINITIVE: Urine Albumin:Creatinine Ratio (ACR > 3mg/mmol). eGFR and U&Es.

TREATMENT

Strict blood glucose and blood pressure control. ACE inhibitor or ARB (first line for renoprotection). SGLT-2 inhibitors.

— : Rapid decline in eGFR or sudden heavy proteinuria (consider other forms of glomerulonephritis).

": Long-term high blood sugar has damaged the small filters in your kidneys, causing protein to leak into your urine. Blood pressure medication protects them."

DDx: Hypertensive Nephrosclerosis, Glomerulonephritis, Recurrent UTIs. Long-standing, often poorly controlled diabetes. Presence of diabetic retinopathy on fundoscopy strongly correlates with diabetic nephropathy. Sudden, rapid drop in eGFR or heavy microscopic haematuria points to Glomerulonephritis, not diabetic nephropathy (which is a slow decline with proteinuria).

Diabetic Neuropathy

HISTORY

Numbness, tingling, or burning pain in the feet/hands (glove and stocking distribution), worse at night. Erectile dysfunction, gastroparesis.

EXAMINATION

Reduced sensation to 10g monofilament. Loss of vibration sense (tuning fork) and proprioception. Absent ankle reflexes. Foot ulcers.

INVESTIGATIONS

BEDSIDE/GP: Diabetic foot check. DEFINITIVE: Clinical diagnosis. HbA1c to check diabetes control. Nerve conduction studies if atypical.

TREATMENT

Optimize blood glucose. Neuropathic pain relief: Duloxetine, Amitriptyline, Pregabalin, or Gabapentin. Podiatry referral for ulcers.

— : Charcot foot (red, hot, swollen, deformed painless foot), painless infected foot ulcer leading to sepsis/amputation.

": High blood sugar has damaged the nerves in your extremities, causing numbness or pain. Good sugar control and special painkillers can help, plus daily foot checks."

DDx: Vitamin B12 Deficiency, Alcoholinduced neuropathy, Chronic Inflammatory Demyelinating Polyneuropathy (CIDP). Classic 'glove and stocking' distribution. Ask about alcohol intake and vegan diet (B12 risk). Symmetrical sensory loss and absent ankle jerks. Normal Serum B12 rules out deficiency. Nerve conduction studies show an axonal, lengthdependent pattern.

Hypercalcaemia of Malignancy

HISTORY

Patient with known cancer (e.g., breast, lung, myeloma). 'Bones, stones, abdominal groans, and psychic moans': polyuria, severe thirst, constipation, nausea, abdominal pain, confusion, extreme lethargy.

EXAMINATION

Dehydration (dry mouth, reduced skin turgor). Altered mental state (drowsiness/ confusion).

INVESTIGATIONS

BEDSIDE/GP: Assess fluid status and GCS. 12-lead ECG (short QT interval). DEFINITIVE: Bloods: High Calcium (adjusted), Low or suppressed PTH (Parathyroid Hormone distinguishes it from primary hyperparathyroidism). U&Es (often AKI).

TREATMENT

Medical emergency. Vigorous IV fluid resuscitation (0.9% Saline 3-4L over 24h) to flush calcium through kidneys. Then IV Bisphosphonates (Zoledronic acid) to stop bone breakdown.

— : Severe hypercalcaemia (>3.5 mmol/L) can cause cardiac arrhythmias, coma, and death. Rapid fluid resuscitation is critical.

": Cancer is causing too much calcium to be released from your bones into your blood. This makes you very confused, thirsty, and sick. We use strong fluid drips and special bone-protecting drugs to lower the calcium levels quickly."

DDx: Primary Bones, stones, abdominal Hyperparathyroidism, groans, and psychic Malignancy (Bony moans. mets/PTHrP), Sarcoidosis, Vitamin D excess. Usually normal. Check for neck lumps or breast/lung signs (malignancy). High Calcium + High PTH = Primary Hyperparathyroidism. High Calcium + Low PTH = Malignancy or other causes. ECG shows short QT interval.

Hyperlipidaemia / Dyslipidaemia

HISTORY

of early MI (<55m, <65f) suggests Familial Hypercholesterolaemia (FH). Tendon xanthomata (knuckles/achilles) are specific to FH. Corneal arcus (<45yrs) is highly suggestive. Normal TFTs rule out hypothyroidism. Normal urine dip (no protein) rules out nephrotic syndrome. Fasting lipid profile confirms elevation.

EXAMINATION

Often normal. May have corneal arcus (white ring in eye), xanthelasma (yellow patches around eyelids), or tendon xanthomata (lumps on Achilles/knuckles in Familial Hypercholesterolaemia).

INVESTIGATIONS

BEDSIDE/ Calculate QRISK3 score (10-year risk of cardiovascular disease). Measure BMI and BEDSIDE/GP: BP. DEFINITIVE: Full lipid profile (Total cholesterol, LDL, HDL, Triglycerides). Non-fasting is usually sufficient now. HbA1c, TFTs, U&Es.

TREATMENT

Lifestyle: Mediterranean diet, exercise, smoking cessation. Primary prevention (QRISK3 >10%): Atorvastatin 20mg. Secondary prevention: Atorvastatin 80mg.

— : Extremely high total cholesterol (>7.5) or strong family

": High levels of fat/cholesterol in the blood. It doesn't cause symptoms but silently blocks your arteries over time, increasing heart attack and stroke risk. Treated with diet and statins."

DDx: Hypothyroidism, Nephrotic Syndrome, Cholestasis, Alcoholism (Secondary causes). Family

Hyperosmolar Hyperglycaemic State (HHS)

HISTORY

Patient with Type 2 Diabetes. Gradual onset (days to weeks) of severe polyuria, polydipsia, profound weakness, confusion, and lethargy. Often triggered by an infection.

EXAMINATION

Profound dehydration (sunken eyes, dry mouth, poor skin turgor, tachycardia, hypotension). Altered mental state or focal neurological signs.

INVESTIGATIONS

BEDSIDE/ Capillary blood glucose (usually very high, e.g., >30 mmol/L). Blood ketones (usually BEDSIDE/GP: low/negative). DEFINITIVE: Serum osmolality (>320 mOsm/kg). U&Es (hypernatraemia, very high urea/creatinine indicating AKI). ABG/VBG (NO significant acidosis).

TREATMENT

can cause cerebral oedema or central pontine myelinolysis. Very high mortality rate. High risk of VTE (give prophylactic heparin).

— : Rapid fluid shifts during

": A severe complication of Type 2 Diabetes where extremely high blood sugar causes you to lose dangerous amounts of water through your urine. It requires urgent, very careful fluid drips in hospital."

DDx: Diabetic Ketoacidosis (DKA), Sepsis, Stroke, Uraemia. Typically Type 2 Diabetes, older patient, longer prodrome (days/weeks) of polyuria/polydipsia compared to DKA. Severe dehydration and altered mental state. No Kussmaul breathing or acetone breath (unlike DKA). Glucose >30 mmol/L, Serum Osmolality >320 mOsm/kg. Absence of significant ketonaemia (<3) and acidosis (pH >7.3) rules out DKA.

Hyperparathyroidism (Primary)

HISTORY

Often asymptomatic and picked up on routine bloods. If symptomatic ('bones, stones, groans'): kidney stones, bone pain, constipation, depression, fatigue. Usually caused by a single benign parathyroid adenoma.

EXAMINATION

Usually completely normal physical exam.

INVESTIGATIONS

BEDSIDE/GP: Check blood pressure (often associated with hypertension). DEFINITIVE: Bloods: HIGH Calcium, inappropriately HIGH or NORMAL Parathyroid Hormone (PTH). Low phosphate. Ultrasound/Sestamibi scan of the neck to locate the adenoma.

TREATMENT

If symptomatic or very high calcium: Surgical removal of the parathyroid adenoma (parathyroidectomy). If unfit for surgery: Calcimimetics (Cinacalcet).

— : Severe hypercalcaemia causing confusion or arrhythmias (requires emergency fluids).

": One of the tiny parathyroid glands in your neck has become overactive and is pumping out too much hormone. This pulls calcium out of your bones and into your blood, risking kidney stones and weak bones. It's usually cured with minor surgery."

DDx: Malignancy (PTHrP), Sarcoidosis, Vitamin D Intoxication, Thiazide diuretics. Bones, stones, groans, and psychic moans (classic hypercalcaemia symptoms). Usually normal; check for Elevated PTH in the presence of neck scars (previous high Calcium is diagnostic surgery) or thyroid masses. (Primary). If PTH is suppressed, investigate for malignancy (e.g. Myeloma/Bony mets).

Hyperthermia and Hypothermia

HISTORY

Hyper: Exposure to extreme heat, excessive exertion, confusion, no sweating (heat stroke). Hypo: Exposure to cold, shivering (stops in severe cases), confusion, lethargy.

EXAMINATION

Hyper: Core temp >40°C, hot dry skin, tachycardia, altered GCS. Hypo: Core temp <35°C, bradycardia, J-waves on ECG, pale/cold skin, coma.

INVESTIGATIONS

BEDSIDE/GP: Continuous core temperature monitoring (rectal or bladder probe). ECG. DEFINITIVE: Bloods: U&Es, CK (rhabdomyolysis in hyperthermia), clotting (DIC risk). ABG.

TREATMENT

Hyper: Rapid active cooling (ice packs, tepid sponging, fans). Hypo: Active rewarming (Bair hugger, warmed IV fluids). Do not declare dead until 'warm and dead' in hypothermia.

— : Heat stroke with altered mental status is a life-threatening emergency causing multi-organ failure. Severe hypothermia causes fatal ventricular fibrillation (VF).

": Dangerous extremes of body temperature. Heat stroke happens when the body's cooling system fails completely, while hypothermia is dangerous chilling of the core. Both require immediate, specialized medical heating or cooling."

Hypoglycaemia

HISTORY

Autonomic: sweating, shaking, palpitations, hunger. Neuroglycopenic: confusion, drowsiness, odd behaviour, speech difficulty. Usually seen in diabetic patients on insulin/sulfonylureas.

EXAMINATION

Tachycardia, pallor, sweating, altered consciousness, seizures, or coma.

INVESTIGATIONS

BEDSIDE/GP: Capillary blood glucose (CBG < 4.0 mmol/L is the diagnostic threshold). DEFINITIVE: In non-diabetics: 'Hypoglycaemia screen' during the attack (Insulin, C-peptide, Cortisol) to find the cause.

TREATMENT

Conscious/able to swallow: Fast-acting oral carbohydrate (e.g., pure fruit juice, Glucogel, sweets). Unconscious: IM Glucagon or IV Dextrose (10% or 20%). Follow with complex carbs.

— : Coma or seizures resulting from prolonged profound hypoglycaemia. Never give oral fluids/food to an unconscious or drowsy patient (choking risk).

": Your blood sugar has dropped too low, causing your brain and body to panic. You need fast-acting sugar immediately. If unconscious, an ambulance is needed for a glucose drip."

DDx: Vasovagal Syncope, Stroke/TIA, Panic Attack, Insulinoma. Whipple's Triad: Symptoms of hypo, low plasma glucose, and symptom relief upon glucose administration. Sweating, tachycardia, confusion. No focal neuro deficits (rules out stroke). Capillary blood glucose <4.0 mmol/L. C-peptide levels help distinguish exogenous insulin (low) from insulinoma (high).

Hypoparathyroidism

HISTORY

. Test Trousseau's and Chvostek's signs. DEFINITIVE: Bloods: Low Calcium, High Phosphate, Low or inappropriately normal PTH (Parathyroid Hormone).

EXAMINATION

Trousseau's sign (inflation of BP cuff causes carpopedal spasm). Chvostek's sign (tapping facial nerve causes facial twitch).

INVESTIGATIONS

BEDSIDE/GP: Check surgical

TREATMENT

Acute/severe (tetany): IV Calcium Gluconate. Chronic: Oral Calcium supplements and active Vitamin D (Alfacalcidol/Calcitriol).

— : Severe hypocalcaemia can cause life-threatening arrhythmias (prolonged QT interval on ECG), seizures, and laryngeal spasm (stridor).

": The tiny parathyroid glands in your neck have been damaged or removed, meaning your body cannot maintain normal calcium levels. Low calcium causes muscle cramps and tingling, treated with daily calcium and vitamin D."

Hypothyroidism

HISTORY

Fatigue, weight gain, cold intolerance, constipation, heavy periods (menorrhagia), depressed mood, poor memory, dry skin/hair loss.

EXAMINATION

Bradycardia, non-pitting oedema (myxoedema), dry skin, brittle hair, loss of outer third of eyebrows, slow-relaxing reflexes.

INVESTIGATIONS

BEDSIDE/GP: Weight measurement, heart rate check. DEFINITIVE: Thyroid Function Tests (TFTs): High TSH, Low Free T4. Check TPO antibodies (Anti- thyroid peroxidase) for Hashimoto's thyroiditis.

TREATMENT

Oral Levothyroxine (synthetic T4). Titrate dose based on TSH levels (rechecked every 6-8 weeks until stable).

— : Myxoedema coma: severe, life-threatening hypothyroidism presenting with hypothermia, bradycardia, heart failure, and coma. Medical emergency.

": Your thyroid gland isn't producing enough metabolism-controlling hormones, making everything in your body slow down. Treated with a daily replacement hormone tablet."

DDx: Depression, Iron Deficiency Anaemia, Chronic Fatigue Syndrome, Nephrotic Syndrome. Cold intolerance, weight gain, constipation, and heavy periods (menorrhagia). Bradycardia, loss of outer third of eyebrows, and delayed relaxation of ankle reflexes. High TSH + Low T4. Normal FBC rules out anaemia. Normal Ferritin rules out iron deficiency. I

Obesity

HISTORY

Excess weight gain. May have symptoms of complications: breathlessness, snoring/daytime sleepiness (Sleep Apnoea), joint pain, polyuria (Diabetes).

EXAMINATION

High BMI (>30 kg/m^2). Central adiposity.

INVESTIGATIONS

BEDSIDE/GP: Calculate BMI. Measure blood pressure. Waist circumference. DEFINITIVE: Screen for comorbidities: HbA1c (Diabetes), Lipid profile, TFTs (rule out hypothyroidism).

TREATMENT

Tiered approach. Lifestyle/dietary advice, exercise. Medications (e.g., Orlistat, GLP-1 agonists like Semaglutide/Liraglutide). Bariatric surgery (Gastric bypass/sleeve) if BMI >40 or >35 with comorbidities.

— : Obesity Hypoventilation Syndrome and Obstructive Sleep Apnoea leading to right heart failure (cor pulmonale).

": Carrying significant excess body fat, which increases the risk of numerous conditions like diabetes, heart disease, and joint problems. We can support weight loss through diet, new injectable medications, or stomach surgery."

Osteomalacia / Rickets

HISTORY

of poor sunlight/Vitamin D intake. Bowing of legs (Rickets in children) or waddling gait (Adults). Low Vitamin D, Low Calcium, and **High ALP**. X-ray shows 'Looser's zones' (pseudofractures). Osteoporosis has normal bloods.

EXAMINATION

Bone tenderness on palpation. Proximal myopathy (difficulty standing from a chair). Children: Genu varum (bow legs), rachitic rosary (swollen costochondral joints on chest).

INVESTIGATIONS

BEDSIDE/GP: Assess dietary

TREATMENT

High-dose Vitamin D replacement (e.g., Colecalciferol). Calcium supplements. Ensure adequate sunlight exposure and dietary calcium.

— : Symptomatic hypocalcaemia (tetany, muscle spasms, arrhythmias) requires urgent IV calcium replacement.

": A condition where bones become soft and weak because the body doesn't have enough Vitamin D (usually from lack of sunlight). It causes bone pain and weak muscles, but is easily fixed with Vitamin D supplements."

DDx: Osteoporosis, Paget's Disease, Bone Metastases. Bone pain, muscle weakness, and

Pituitary Tumours (Adenomas)

HISTORY

Mass effect: Bitemporal hemianopia (tunnel vision), headaches. Hormonal effect: Prolactinoma (galactorrhoea, amenorrhoea, erectile dysfunction), Acromegaly (large hands/jaw, sweating), Cushing's (weight gain).

EXAMINATION

Visual field defects (bitemporal hemianopia). Signs of specific hormonal excess (e.g., coarse facial features in acromegaly).

INVESTIGATIONS

BEDSIDE/GP: Formal visual field testing by confrontation. Check blood pressure. DEFINITIVE: MRI Pituitary with contrast. Endocrine blood panel (Prolactin, IGF-1, 9am Cortisol, TFTs, LH/FSH, Testosterone).

TREATMENT

first-line (Dopamine agonists like Cabergoline/ Bromocriptine shrink the tumour). Others/causing visual loss: Trans-sphenoidal surgical resection (through the nose).

— : Pituitary Apoplexy: Sudden haemorrhage into the tumour causing a thunderclap headache, sudden blindness, and cardiovascular collapse (due to acute lack of cortisol). Emergency steroids needed.

": A benign growth on the master hormone gland at the base of the brain. It can cause problems by overproducing hormones or by growing so large it squashes the optic nerves, causing tunnel vision. Many are treated with tablets, but some need surgery through the nose."

Thyroid Nodules / Thyroid Eye Disease

HISTORY

Weight loss, increased appetite, heat intolerance, palpitations, anxiety, tremor, loose stools.

EXAMINATION

Tachycardia, fine tremor, warm sweaty skin, goitre. Exophthalmos if Graves'.

INVESTIGATIONS

BEDSIDE/GP: ECG (check for AF). DEFINITIVE: TFTs (Low TSH, High T4/T3). TSH receptor antibodies.

TREATMENT

Propranolol for symptoms. Carbimazole. Radioactive iodine.

— : Thyroid storm (severe fever, tachycardia, delirium) is a fatal emergency.

": The thyroid gland is in overdrive, speeding up your heart and metabolism. We treat it with tablets that block the hormone production."

DDx: Thyrotoxicosis

Polyuria, polydipsia, weight loss, fatigue, recurrent thrush/infections.

HISTORY

of brain surgery/ head trauma (Diabetes Insipidus). Acanthosis nigricans (velvety neck skin indicating insulin resistance). High BMI. HbA1c >48 mmol/mol. High Cpeptide and negative islet autoantibodies rule out Type 1 Diabetes. Normal serum/urine osmolality rules out DI. U

EXAMINATION

Assess BMI, BP. Diabetic foot check (neuropathy/pulses).

INVESTIGATIONS

BEDSIDE/GP: Capillary blood glucose, Urine dipstick (glucose). DEFINITIVE: HbA1c (≥ 48 mmol/mol). Fasting glucose ≥ 7.0. U&Es, Lipids.

TREATMENT

Lifestyle. 1st: Metformin. 2nd: SGLT2i, DPP4i, Sulfonylureas. Manage BP/Lipids.

— : HHS (severe dehydration, altered consciousness), DKA (vomiting, ketones).

": Body cannot properly use insulin, causing high blood sugar. Managed with diet and tablets."

DDx: Type 1 Diabetes, Diabetes Insipidus, Steroid-induced hyperglycaemia. Older, insidious onset, obesity. No rapid weight loss or

Renal & Urology

11 conditions

Benign Prostatic Hyperplasia (BPH)

HISTORY

Older man. Lower Urinary Tract Symptoms (LUTS): Voiding (hesitancy, weak stream, straining, incomplete emptying) and

Storage (frequency, urgency, nocturia).

EXAMINATION

(DRE): enlarged, smooth, firm, symmetrical prostate with a central sulcus.

INVESTIGATIONS

BEDSIDE/ International Prostate Symptom Score (IPSS). Urine dipstick (rule out UTI/blood). BEDSIDE/GP: Bladder scan for post-void residual. DEFINITIVE: Bloods: U&Es (check renal function), PSA (to counsel and rule out cancer).

TREATMENT

Lifestyle: reduce caffeine/fluids before bed. Medical: Alpha-blockers (Tamsulosin) relax muscle, 5-alpha reductase inhibitors (Finasteride) shrink prostate. Surgical: TURP.

— : Acute urinary retention (painful inability to pee), recurrent UTIs, renal failure (post-renal AKI), or a hard, nodular prostate on DRE (Cancer).

": The prostate gland naturally enlarges as men age, squeezing the tube that carries urine. Medication can relax the muscle or shrink the gland to make it easier to pee."

Bladder Cancer

HISTORY

Painless, visible haematuria (blood in the urine) is the most common presentation. May have recurrent UTIs or irritative voiding symptoms (dysuria, urgency). High risk: smoking, dye industry workers.

EXAMINATION

Often normal physically. Late signs: pelvic mass, weight loss.

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick (confirms haematuria). DEFINITIVE: Urgent (2-week wait) referral. Flexible cystoscopy (direct visualization) is gold standard. CT Urogram for upper tract/staging. Urine cytology.

TREATMENT

Non-muscle invasive: Transurethral resection of bladder tumour (TURBT) +/- intravesical BCG/chemotherapy. Muscle-invasive: Radical cystectomy or Radiotherapy.

— : Unexplained visible haematuria in ANY patient >45 years old requires a 2-week wait cancer referral.

": A cancer lining the inside of the bladder, strongly linked to smoking. It usually causes painless bleeding in the urine. We investigate it with a camera test into the bladder."

DDx: Gallstones/ Cholecystitis, Cholangiocarcinoma, Liver Metastases. Persistent weight loss and jaundice point to cancer rather than simple biliary colic/cholecystitis. Courvoisier's Law: A palpable, non-tender gallbladder in a jaundiced patient is unlikely to be gallstones (points to malignancy). Ultrasound/MRCP shows a mass or wall thickening >1cm. Biopsy or PET-CT confirms malignancy vs inflammation.

Chronic Kidney Disease (CKD)

HISTORY

Often asymptomatic until advanced. Fatigue, oedema (swollen ankles), nausea, pruritus (itchy skin), nocturia.

EXAMINATION

Hypertension, fluid overload (oedema, raised JVP), pallor (due to anaemia of chronic disease).

INVESTIGATIONS

BEDSIDE/GP: Blood pressure monitoring, Urine dipstick (looking for proteinuria/haematuria). DEFINITIVE: eGFR <60 ml/min for >3 months. Urine ACR (Albumin:Creatinine Ratio). Renal ultrasound.

TREATMENT

Strict BP control (ACE inhibitors or ARBs), Statins for CV risk. Manage complications (Iron/ EPO for anaemia).

— : Rapidly declining eGFR, severe hyperkalaemia, symptoms of uraemia (encephalopathy, pericarditis).

": A long-term condition where the kidneys don't work as well as they should. We manage it by controlling blood pressure to prevent further damage."

DDx: Acute Kidney Injury (AKI), Renovascular disease, Obstructive Uropathy. Gradual onset of symptoms (fatigue, oedema) over months/ years rather than days. Absence of palpable bladder rules out chronic lower urinary tract obstruction. Previous blood tests showing eGFR <60 for >3 months confirms CKD. Renal ultrasound showing small, shrunken kidneys confirms chronicity and rules out AKI (where kidneys are normal/ large).

Dehydration

HISTORY

of bleeding (rules out haemorrhage). Dry mucous membranes, sunken eyes, reduced skin turgor. No fever or obvious source of infection (points away from sepsis). High urea:creatinine ratio on U&Es confirms pre-renal dehydration. Normal Hb rules out significant acute haemorrhage. Normal CRP rules out severe sepsis.

EXAMINATION

Dry mucous membranes, reduced skin turgor, sunken eyes, tachycardia, hypotension, prolonged capillary refill.

INVESTIGATIONS

BEDSIDE/GP: Vital signs (HR, BP). Urine dipstick (high specific gravity, ketones). DEFINITIVE: U&Es (Hypernatraemia or hyponatraemia, elevated urea/creatinine indicating AKI).

TREATMENT

Oral rehydration salts. If severe/unable to tolerate oral: IV fluids (0.9% Saline).

— : Hypovolaemic shock (severe hypotension, altered mental status, anuria).

": Your body has lost more fluid than you've taken in. We need to replace the water and salts, either by drinking or through a drip."

DDx: Sepsis, Hypovolaemic Shock (Haemorrhage), Heart Failure. Clear

Epididymitis / Epididymo-orchitis

HISTORY

Unilateral scrotal pain and swelling developing over days. Fever, dysuria, urethral discharge. Age <35 (STI usually), Age >35 (UTI usually).

EXAMINATION

Unilateral tender, swollen epididymis/testis. Erythematous, warm scrotum. Prehn's sign (elevation of testis relieves pain - though unreliable). Intact cremasteric reflex.

INVESTIGATIONS

BEDSIDE/ Urine dipstick (leukocytes/nitrites). First-catch urine for Chlamydia/Gonorrhoea BEDSIDE/GP: NAAT. DEFINITIVE: Scrotal Ultrasound ONLY if testicular torsion or tumour cannot be completely ruled out clinically.

TREATMENT

STI cause (Ceftriaxone IM + Doxycycline). Enteric/UTI cause (Ofloxacin or Ciprofloxacin for 14 days). Scrotal support, analgesia.

— : Testicular Torsion (sudden onset severe pain, high-riding testis, absent cremasteric reflex) is a surgical emergency.

": An infection of the coiled tube at the back of the testicle, usually caused by a sexually transmitted infection or a urine infection. Treated with a course of antibiotics."

DDx: Testicular Torsion, Testicular Cancer, Inguinal Hernia. Gradual onset over days (torsion is sudden onset over minutes). Associated dysuria/fever. Intact cremasteric reflex (usually absent in torsion). Pain relief on elevating the testis (Prehn's sign) suggests epididymitis but is unreliable. Scrotal ultrasound shows hyperaemia (increased blood flow), definitively ruling out testicular torsion (which shows absent blood flow).

Nephrotic Syndrome

HISTORY

Classic triad: 1. Massive Proteinuria, 2. Hypoalbuminaemia, 3. Oedema. Frothy urine. Severe swelling around the eyes (periorbital oedema, worse in morning) and pitting oedema in the legs/genitals.

EXAMINATION

Periorbital oedema, ascites, gross peripheral oedema. Look for signs of underlying cause (e.g., lupus rash, diabetes).

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick (+++ or ++++ protein). Blood pressure. DEFINITIVE: Urine PCR (Protein:Creatinine ratio >300 mg/mmol). Bloods: Low Albumin (<25g/L), High Lipids. Renal biopsy (to determine exact cause, e.g., Minimal Change Disease in kids).

TREATMENT

High-dose Corticosteroids (first line, especially for children). Diuretics (Furosemide) for oedema. ACE inhibitors to reduce proteinuria. Prophylactic anticoagulation (high clot risk).

— : High risk of Deep Vein Thrombosis/PE (due to loss of anti-clotting proteins in the urine) and high risk of severe infections (due to loss of immunoglobulins).

": The filters in the kidneys are damaged and leaking massive amounts of protein from the blood into the urine. This causes fluid to leak into the tissues, causing severe puffiness around the eyes and legs. Treated primarily with strong steroids."

Prostate Cancer

HISTORY

Often asymptomatic. LUTS: hesitancy, poor stream, terminal dribbling, frequency, nocturia. Back pain, bone pain, or weight loss indicates advanced/metastatic disease.

EXAMINATION

of the back passage, and special scans. Not all cases need immediate

INVESTIGATIONS

BEDSIDE/GP: DRE. Urine dipstick to rule out UTI. DEFINITIVE: Prostate Specific Antigen (PSA) blood test (counsel patient first). Multiparametric MRI of the prostate. Transrectal/Transperineal ultrasound-guided biopsy.

TREATMENT

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— : Spinal Cord Compression (back pain, leg weakness, urinary retention) in a man with known or suspected prostate cancer is an emergency.

": Cancer of the prostate gland in men. It grows slowly. We test for it with a blood test (PSA), an"

DDx: Benign Prostatic Hyperplasia (BPH), Prostatitis, Urinary Tract Infection (UTI). Lower urinary tract symptoms (LUTS) like hesitancy/nocturia. Bone pain (back pain) suggests metastasis. Digital Rectal Exam (DRE) shows a hard, irregular, nodular gland. (BPH is smooth and firm). Raised PSA (age-adjusted). Multiparametric MRI (mpMRI) followed by biopsy confirms malignancy and Gleason score.

Sexual Dysfunction (Erectile Dysfunction)

HISTORY

Inability to achieve or maintain an erection sufficient for sexual intercourse. Loss of early morning erections suggests a physical cause. Presence of morning erections with situational ED suggests a psychological cause. Ask about cardiovascular risk factors, smoking, alcohol, and medications.

EXAMINATION

(size/atrophy). Secondary sexual characteristics.

INVESTIGATIONS

BEDSIDE/GP: Calculate QRISK3 (ED is heavily linked to underlying cardiovascular disease). DEFINITIVE: Fasting glucose/HbA1c, Lipid profile, early morning Testosterone, LH/FSH. TFTs.

TREATMENT

Address modifiable risks (smoking, weight). First line medical: Phosphodiesterase-5 (PDE5) inhibitors (e.g., Sildenafil/Viagra). Vacuum erection devices, intracavernosal injections, or psychological therapy if appropriate.

— : ED is often a 'sentinel symptom' for coronary artery disease. A man presenting with new ED needs a full cardiovascular risk assessment, as a heart attack could follow in 3-5 years.

": Difficulty getting or keeping an erection. While it can be related to stress, it is very often an early warning sign of narrowed blood vessels (which also affects the heart). We check your heart health and can prescribe tablets to improve blood flow."

Testicular Torsion

HISTORY

Adolescent boy. Sudden onset of severe, unilateral testicular pain. Often accompanied by lower abdominal pain, nausea, and vomiting. May wake patient from sleep.

EXAMINATION

Tender, swollen, retracted (high-riding) testicle. Abnormal transverse lie. Absent cremasteric reflex. Prehn's sign is negative (elevating the testicle does NOT relieve pain).

INVESTIGATIONS

BEDSIDE/GP: Nil by mouth (prepare for theatre). DEFINITIVE: Clinical diagnosis. DO NOT delay surgery for an ultrasound scan. Time is testicle.

TREATMENT

Surgical emergency. Urgent scrotal exploration within 6 hours of pain onset to untwist the cord and fix both testicles to the scrotum (bilateral orchidopexy).

— : Irreversible testicular necrosis/death occurs after 6 hours of ischaemia. Any acute swollen scrotum in a young male is torsion until proven otherwise surgically.

": The testicle has twisted on its blood supply cord, cutting off the blood. It causes extreme sudden pain and requires an emergency operation within a few hours to save the testicle."

Urinary Tract Infection (Upper / Pyelonephritis)

HISTORY

Loin/flank pain, high fever, rigors (shivering), nausea, vomiting. May be accompanied by lower UTI symptoms (dysuria, frequency, urgency).

EXAMINATION

High fever. Renal angle tenderness (costovertebral angle tenderness) on percussion. Suprapubic tenderness.

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick (Positive for Nitrites and Leukocytes). Vital signs (assess for sepsis). DEFINITIVE: Mid-stream urine (MSU) for microscopy, culture and sensitivities. Bloods: FBC, CRP, U&Es. Renal ultrasound if recurrent or male.

TREATMENT

Non-pregnant/Community: Oral Cefalexin or Co-amoxiclav (7-10 days). Severe/Sepsis: Hospital admission, IV Ceftriaxone, IV fluids.

— : Sepsis. Urinary obstruction with an infected kidney (e.g., a kidney stone blocking an infected kidney) is a urological emergency needing urgent drainage/stent.

": A bacterial infection that has travelled up from the bladder into the kidneys themselves, causing high fevers and back pain. Needs a longer course of strong antibiotics."

Musculoskeletal

19 conditions

Ankylosing Spondylitis

HISTORY

Young male (usually <30). Insidious onset of chronic lower back pain. Worse in the morning and with rest, IMPROVES with exercise. Waking up in the second half of the night with pain.

EXAMINATION

Reduced spinal mobility (Schober's test <5cm), tender sacroiliac joints, loss of lumbar lordosis. Question mark posture in late disease.

INVESTIGATIONS

BEDSIDE/GP: Examine posture and spinal range of motion. DEFINITIVE: X-ray of sacroiliac joints (sacroiliitis) and spine ('bamboo spine' late stage). MRI is better for early disease. Bloods: HLA-B27 positive, raised CRP/ESR.

TREATMENT

First line: NSAIDs and intensive physiotherapy. Second line (if severe): Anti-TNF biologic drugs (e.g., Adalimumab).

— : Acute anterior uveitis (painful red eye), aortic regurgitation, spinal fractures from minor trauma due to rigid spine.

": An inflammatory arthritis affecting the spine, making it stiff and painful, especially after resting. Exercise helps. Special medications can slow down the inflammation."

Bursitis

HISTORY

Localised pain, swelling, and tenderness over a joint (commonly the knee 'housemaid's knee' or elbow 'student's elbow'). Pain is worse with movement or pressure on the area.

EXAMINATION

Fluctuant, well-circumscribed swelling over a bursa. May be red and warm. Joint range of motion is usually preserved (unlike septic arthritis).

INVESTIGATIONS

BEDSIDE/GP: Examine joint range of movement. DEFINITIVE: Clinical diagnosis. Ultrasound if diagnosis unclear. Aspiration of fluid if septic bursitis is suspected (to check for bacteria).

TREATMENT

Rest, ice, NSAIDs, avoidance of pressure (use padding/cushions). If septic: Flucloxacillin. Intrabursal steroid injections if chronic and non-infected.

— : Septic bursitis (severe pain, spreading redness, fever) requires antibiotics to prevent spread to the joint.

": Inflammation of a small fluid-filled sac (bursa) that usually cushions your joints. It causes a painful, squishy lump, often on the elbow or kneecap. Rest and painkillers usually resolve it."

DDx: C

Carpal Tunnel Syndrome

HISTORY

Pain, tingling, and numbness in the thumb, index, and middle fingers (median nerve distribution). Worse at night, often wakes patient. Shaking the hand relieves symptoms.

EXAMINATION

Wasting of the thenar eminence (thumb muscle). Positive Tinel's sign (tapping wrist causes tingling). Positive Phalen's test (wrist flexion causes symptoms).

INVESTIGATIONS

BEDSIDE/GP: Check for underlying causes (pregnancy, hypothyroidism, diabetes). DEFINITIVE: Often a clinical diagnosis. Nerve conduction studies (NCS) if diagnosis is in doubt or prior to surgery.

TREATMENT

First line: Nocturnal wrist splint. Second line: Local corticosteroid injection. Definitive: Carpal tunnel release surgery.

— : Severe motor weakness or profound muscle wasting requires urgent surgical decompression to prevent permanent nerve damage.

": The main nerve to your hand is being squished as it passes through a narrow tunnel in your wrist. A splint worn at night keeps the wrist straight and gives the nerve room."

Crystal Arthropathy (Gout)

HISTORY

Sudden onset of extreme pain, redness, and swelling in a single joint, peaking within 12-24 hours. Most commonly the 1st MTP joint (big toe). Triggered by alcohol, purine-rich foods, or dehydration.

EXAMINATION

Extremely tender, red, hot, swollen joint. Patient cannot bear a bedsheet touching it. Tophi (white chalky nodules) may be present on ears or joints in chronic cases.

INVESTIGATIONS

BEDSIDE/GP: Assess joint. Check temperature (can cause mild fever). DEFINITIVE: Joint aspiration (gold standard): shows needle-shaped, negatively birefringent urate crystals. Serum Uric Acid (check 2-4 weeks AFTER the flare, as it may be normal during the acute attack).

TREATMENT

Acute: High-dose NSAIDs (Naproxen) OR Colchicine OR oral Corticosteroids. Preventative: Allopurinol (start only after the acute flare has settled).

— : Septic arthritis is the main differential and is a medical emergency. Joint aspiration must be done if there is any doubt.

": High levels of uric acid in your blood form sharp crystals inside a joint (usually the big toe), causing a sudden, incredibly painful, red, hot swelling. We treat the pain first, then start tablets later to prevent it returning."

DDx: Pseudogout, Septic Arthritis, Cellulitis. Rapid onset (within hours), often affecting the 1st MTP joint. High intake of alcohol/purines. Previous episodes. Extremely tender, red, swollen joint. Presence of tophi (chronic). Joint aspiration shows needleshaped negatively birefringent crystals (Gout). Rhomboidshaped positive crystals rule in Pseudogout. High WBC/culture rules in Sepsis.

Fibromyalgia

HISTORY

Chronic, widespread pain lasting >3 months, extreme fatigue, unrefreshing sleep, 'brain fog' (cognitive dysfunction), headaches.

EXAMINATION

Multiple tender points across the body. Normal joints (no swelling/erythema). Normal neurological exam.

INVESTIGATIONS

BEDSIDE/GP: Use diagnostic questionnaires (Widespread Pain Index). DEFINITIVE: Diagnosis of exclusion. Normal bloods (ESR, CRP, TFTs, Rheumatoid Factor, FBC).

TREATMENT

Explanation & validation. Graded exercise, CBT. Meds: Amitriptyline, Duloxetine, Pregabalin. (Avoid opioids!).

— : Joint swelling, raised inflammatory markers (ESR/CRP), weight loss (Points to inflammatory arthritis or cancer).

": A chronic condition causing widespread pain and profound tiredness. Your brain's pain signals are turned up too high. Exercise and specific nerve painkillers help manage it."

DDx: Rheumatoid Arthritis (RA), Hypothyroidism, Polymyalgia Rheumatica (PMR), SLE. Widespread pain >3 months without significant joint swelling. No true morning stiffness lasting >1 hour (which would suggest RA or PMR). Multiple tender points but absolutely normal, nonswollen, non-red joints. Completely normal inflammatory markers (CRP/ESR) rule out RA, PMR, and active lupus. Normal TFTs rule out hypothyroidism. Fibrotic Lung Disease (Idiopathic Pulmonary

Idiopathic Arthritis (Juvenile - JIA)

HISTORY

Child <16 years old. Joint pain, swelling, and morning stiffness lasting >6 weeks. May have a limp. Subtypes: Oligoarticular (<5 joints), Polyarticular (>5 joints), or Systemic (spiking fevers, salmon-pink rash).

EXAMINATION

Swollen, warm joints with restricted movement. Assess for leg length discrepancy. Systemic JIA: fever, rash, hepatosplenomegaly, lymphadenopathy.

INVESTIGATIONS

BEDSIDE/GP: Check child's growth charts and observe gait. DEFINITIVE: Clinical diagnosis of exclusion. Bloods: ESR/CRP, ANA (high risk of uveitis if positive), Rheumatoid Factor (rarely positive but indicates worse prognosis).

TREATMENT

Paediatric rheumatology referral. NSAIDs, intra-articular steroid injections. DMARDs (Methotrexate) and Biologics for severe/polyarticular disease.

— : Chronic anterior uveitis is very common and often asymptomatic; requires regular screening by an ophthalmologist to prevent blindness. Macrophage Activation Syndrome is a fatal complication of Systemic JIA.

": An autoimmune condition in children causing painful, swollen, and stiff joints. Some forms also cause fevers and rashes. We treat it with medications to calm the immune system to prevent permanent joint damage."

Joint Dislocation (e.g., Shoulder)

HISTORY

of trauma (e.g., fall onto outstretched hand or direct blow). Severe pain, inability to move the joint, feeling that the joint has 'popped out'.

EXAMINATION

Visible deformity/loss of normal joint contour (e.g., squared-off shoulder). Arm held in fixed position. MUST assess neurovascular status distal to the injury.

INVESTIGATIONS

BEDSIDE/GP: Check pulses and sensation below the joint before AND after any movement. DEFINITIVE: X-ray of the joint (e.g., AP and Y-scapular views for the shoulder) to confirm direction of dislocation and check for associated fractures.

TREATMENT

Prompt closed reduction (manipulating the joint back into place) under analgesia/sedation. Re-check X-ray and neurovascular status post-reduction. Immobilise in a sling.

— : Axillary nerve injury (check sensation over the 'regimental badge' area of the shoulder). Vascular compromise (absent pulses) requires emergency reduction.

": The bones of your joint have been completely forced out of their normal position. It is incredibly painful. We give you strong painkillers and pull the bones back into their proper socket."

DDx: K

Lower Limb Fractures (Neck of Femur)

HISTORY

of a fall. Severe pain in the hip/groin. Unable to bear weight or move the leg.

EXAMINATION

The affected leg is typically SHORTENED and EXTERNALLY ROTATED. Pain on any attempt to move the hip.

INVESTIGATIONS

BEDSIDE/ Assess ABCDE (elderly patients may have fallen due to a medical cause like MI, stroke, BEDSIDE/GP: or infection). Do not move the leg unnecessarily. DEFINITIVE: X-ray Pelvis and affected hip (AP and Lateral views). Pre-op bloods (FBC, U&Es, Clotting, Group and Save). ECG and CXR for surgical fitness.

TREATMENT

Adequate analgesia (e.g., Fascia Iliaca block). Surgery within 36 hours. Intracapsular fracture: Hemiarthroplasty or Total Hip Replacement. Extracapsular: Dynamic Hip Screw (DHS) or Intramedullary Nail.

— : High risk of deep vein thrombosis (DVT), pneumonia, and delirium post- operatively. Must actively prevent pressure sores.

": A broken hip, very common in older people after a fall. The leg usually looks shorter and turned outwards. It almost always requires surgery to fix the bone or replace the joint so the patient can walk again."

Lower Limb Soft Tissue Injury (ACL Tear)

HISTORY

Sports injury (often football/skiing). Sudden deceleration, pivoting, or twisting injury. The patient often hears or feels a loud 'POP'. Rapid swelling (haemarthrosis) within 1-2 hours. Inability to continue playing. Instability/'giving way' later on.

EXAMINATION

Grossly swollen knee. Positive Lachman test (increased forward translation of the tibia with a soft end-point). Positive Anterior Drawer test.

INVESTIGATIONS

BEDSIDE/ Examine the uninjured knee first for comparison. Assess neurovascular status of BEDSIDE/GP: the foot. DEFINITIVE: Plain X-ray to rule out fractures (e.g., tibial plateau, Segond fracture). MRI is the gold standard for diagnosing ligament and meniscal tears.

TREATMENT

Acute: RICE (Rest, Ice, Compression, Elevation), analgesia. Long-term: Physiotherapy to strengthen quadriceps/hamstrings. Surgical reconstruction (using hamstring/patellar tendon graft) for young/active patients experiencing instability.

— : A locked knee (unable to fully straighten) suggests an associated 'bucket- handle' meniscal tear flipped into the joint, which requires urgent arthroscopic surgery.

": A tear of the main stabilising ligament in the centre of the knee, usually from a twisting sports injury. It causes immediate severe swelling and makes the knee feel wobbly. It is managed with intense physio and sometimes a surgical rebuild."

Osteoarthritis

HISTORY

Joint pain that is worse with activity/weight-bearing and better with rest. Short-lived morning stiffness (<30 minutes).

Commonly affects knees, hips, and small joints of the hands.

EXAMINATION

Crepitus (crunching sensation), restricted range of movement, bony swelling. Hand: Heberden's nodes (DIP joints) and Bouchard's nodes (PIP joints). No warmth or severe erythema.

INVESTIGATIONS

BEDSIDE/GP: BMI (obesity is a major risk factor). DEFINITIVE: Clinical diagnosis if >45 with typical symptoms. X-ray (LOSS: Loss of joint space, Osteophytes, Subchondral sclerosis, Subchondral cysts).

TREATMENT

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— : Hot, red, swollen joint (Septic Arthritis or Gout). Morning stiffness > 1 hour (Rheumatoid Arthritis).

": The smooth cartilage protecting your joints has worn away over time, causing the bones to rub together. This leads to pain and stiffness. Exercise and weight loss are the best initial"

DDx: Rheumatoid Arthritis (RA), Gout, Septic Arthritis. Pain is worse with use and better with rest. Morning stiffness lasts <30 mins (RA >1 hour). Heberden's (DIP) and Bouchard's (PIP) nodes. Crepitus on movement. No systemic signs. X-ray showing LOSS: Loss of joint space, Osteophytes, Subchondral sclerosis, Subchondral cysts. Normal CRP/ESR.

Osteomyelitis

HISTORY

of recent trauma, surgery, or a chronic non-healing diabetic foot ulcer. Usually Staphylococcus aureus.

EXAMINATION

Fever. Affected area is warm, swollen, erythematous, and extremely tender to palpation. Deep ulcers where you can 'probe to bone'.

INVESTIGATIONS

BEDSIDE/ Probe diabetic ulcers with a sterile blunt probe; if you hit hard bone, osteomyelitis is BEDSIDE/GP: highly likely. DEFINITIVE: MRI is the gold standard imaging (X-rays are often normal for the first 10-14 days). Bloods: raised WBC, CRP, ESR. Bone biopsy/cultures.

TREATMENT

Prolonged IV antibiotics (often 6 weeks) via a PICC line. Surgical debridement of dead, infected bone.

— : Spinal osteomyelitis/discitis: presents with severe back pain and fever, can cause spinal cord compression.

": A deep, severe bacterial infection inside the bone itself. It usually requires weeks of strong antibiotics directly into the vein, and sometimes surgery to scrape away the infected bone."

Osteoporosis

HISTORY

Often a 'silent' disease until a fracture occurs. Fragility fractures (fracture from a fall from standing height or less) typical in the wrist, hip, or vertebrae. Loss of height, kyphosis.

EXAMINATION

May have dorsal kyphosis (Dowager's hump) from vertebral wedge fractures. Otherwise normal.

INVESTIGATIONS

BEDSIDE/GP: Calculate FRAX score or QFracture score to assess 10-year fracture risk. DEFINITIVE: DEXA Scan (T-score less than or equal to -2.5 defines osteoporosis. T-score -1.0 to -2.5 is osteopenia). Bloods to rule out secondary causes (Calcium, Vitamin D, TFTs, Myeloma screen).

TREATMENT

Lifestyle (weight-bearing exercise, calcium-rich diet). Vitamin D/Calcium supplements. First- line medical: Oral Bisphosphonates (e.g., Alendronic acid).

— : Pathological fractures (e.g., breaking a bone by just rolling over in bed) must raise suspicion for bone metastases or multiple myeloma.

": Your bones have lost their density and become more fragile and porous, meaning they break easily from minor bumps or falls. We use special tablets to strengthen the bone structure."

DDx: Osteomalacia, Myeloma, Metastatic bone disease. Often asymptomatic until a Loss of height or increased 'fragility fracture' occurs kyphosis (Dowager's (e.g. from standing height). hump). Early menopause is a risk. DEXA Scan shows a T-score of -2.5 or lower. Normal blood tests (Calcium, Phosphate, ALP) rule out osteomalacia.

Polymyalgia Rheumatica (PMR)

HISTORY

Patient >50 years old. Subacute onset of severe bilateral aching, stiffness, and pain in the PROXIMAL muscles (shoulders, neck, and pelvic girdle). Prominent morning stiffness (>45 mins). No true muscle weakness.

EXAMINATION

Tenderness over shoulders and hips. Reduced active range of movement due to pain, but passive movement is often normal. Normal muscle strength (differentiates from myositis).

INVESTIGATIONS

BEDSIDE/GP: Assess for signs of Temporal Arteritis. DEFINITIVE: Bloods: Markedly raised ESR and CRP. Normal CK (rules out muscle damage). Normal Rheumatoid Factor/CCP.

TREATMENT

Low-dose oral Corticosteroids (e.g., Prednisolone 15–20mg/day (NICE starting dose; titrate to response)). Symptoms should improve dramatically within 24-48 hours (this is virtually diagnostic). Slowly taper over 1-2 years.

— : Giant Cell Arteritis (Temporal Arteritis): Temporal headache, scalp tenderness, jaw claudication, visual loss. About 15% of PMR patients develop this, requiring immediate highdose steroids to prevent blindness.

": An inflammatory condition in older adults causing severe pain and stiffness in the shoulders and hips, especially in the morning. A low dose of steroid tablets usually acts like a 'magic bullet', relieving symptoms within a day."

DDx: Rheumatoid Arthritis (RA), Giant Cell Arteritis (GCA), Hypothyroidism, Fibromyalgia. Symmetrical muscle pain and stiffness in shoulders and pelvic girdle. Morning stiffness >45 mins. Rapid response to steroids (within 48h) is diagnostic. Reduced active range of motion in shoulders. NO true joint swelling or muscle weakness (rules out RA and Myositis). Markedly elevated ESR/CRP (>40). Normal Creatine Kinase (CK) rules out polymyositis. Normal TFTs.

Reactive Arthritis

HISTORY

Asymmetrical oligoarthritis (usually lower limbs) developing 1-4 weeks after a GI infection (e.g., Campylobacter/Salmonella) or STI (e.g., Chlamydia). 'Can't see, can't pee, can't climb a tree'.

EXAMINATION

Hot, swollen, tender joint (often knee or ankle). Conjunctivitis/anterior uveitis (red eye). Urethritis (dysuria/discharge). Dactylitis (sausage-like toe).

INVESTIGATIONS

BEDSIDE/ Urine dipstick, STI screen (first-catch urine for Chlamydia NAAT), Stool culture if BEDSIDE/GP: recent diarrhoea. DEFINITIVE: Joint aspiration to RULE OUT Septic Arthritis (fluid is sterile in reactive arthritis but shows high white cells). Bloods: raised CRP/ESR. HLA-B27 testing.

TREATMENT

NSAIDs for joint pain. Intra-articular steroid injections. Treat the underlying trigger infection (e.g., Doxycycline for Chlamydia). Usually self-resolves in 6 months.

— : Always treat an acute, hot, swollen joint as Septic Arthritis until proven otherwise by joint aspiration.

": Your immune system has overreacted to a recent tummy bug or sexually transmitted infection, causing your joints, eyes, and water pipe to become inflamed. It usually gets better on its own."

Rheumatoid Arthritis

HISTORY

Symmetrical polyarthritis (affecting small joints of hands/feet). Prominent morning stiffness lasting > 1 hour. Fatigue, weight loss, systemic malaise.

EXAMINATION

Symmetrical swelling/tenderness of MCP, PIP, and wrist joints (DIP joints spared). 'Boggy' joints. Late signs: Ulnar deviation, swan-neck, and boutonniere deformities. Rheumatoid nodules.

INVESTIGATIONS

BEDSIDE/GP: Examine hands, wrists, and feet for active synovitis. Check cardiovascular risk. DEFINITIVE: Bloods: Rheumatoid Factor (RF) and Anti-CCP antibodies (highly specific). Raised CRP/ ESR. X-rays of hands/feet (periarticular osteopenia, joint space narrowing, erosions).

TREATMENT

Urgent Rheumatology referral. DMARDs (Methotrexate, Sulfasalazine). Bridging oral/IM corticosteroids during flare-ups. Biologics (TNF-inhibitors) if severe.

— : Atlanto-axial subluxation (neck pain radiating to occiput, limb weakness). High risk of accelerated cardiovascular disease (heart attacks/strokes).

": An autoimmune disease where your body attacks the lining of your joints, causing pain, swelling, and stiffness, especially in the morning. Strong medications help stop the damage."

DDx: Osteoarthritis, Psoriatic Arthritis, SLE, Polymyalgia Rheumatica. Symmetrical polyarthritis affecting small joints of hands/feet. Morning stiffness >1 hour (OA is <30 mins). Symptoms improve with use. Swollen 'boggy' joints, ulnar deviation, and swanneck deformity. Sparing of the DIP joints (rules out OA). Positive Rheumatoid Factor (RF) and Anti-CCP (highly specific). Xray shows periarticular erosions and joint space narrowing.

Septic Arthritis

HISTORY

Rapid onset of severe pain, swelling, and redness in a single joint (most commonly the knee). The patient is unable to bear weight or move the joint. Fever and systemic malaise. Often in patients with existing joint disease or prosthetics.

EXAMINATION

Joint is hot, red, and visibly swollen (effusion). SEVERE pain on even the slightest active or passive movement. Fever.

INVESTIGATIONS

BEDSIDE/ Vital signs (sepsis check). Do NOT attempt to move the joint excessively if they are in BEDSIDE/GP: agony. DEFINITIVE: Joint aspiration MUST be done BEFORE starting antibiotics. Fluid is sent for urgent Gram stain and culture (usually Staphylococcus aureus). Bloods: very high CRP/ESR, blood cultures.

TREATMENT

Medical emergency. Admission for prolonged IV antibiotics (e.g., Flucloxacillin) for 4-6 weeks. Urgent orthopaedic surgical washout/lavage of the joint.

— : Any acute, hot, swollen, painful joint is Septic Arthritis until proven otherwise by aspiration. Delays in antibiotics/washout lead to rapid, irreversible destruction of the joint cartilage within days.

": A highly dangerous bacterial infection inside a joint space. It causes intense pain and swelling and will rapidly destroy the joint if not treated. It requires emergency hospital admission, joint drainage, and weeks of IV antibiotics."

Systemic Lupus Erythematosus (SLE)

HISTORY

Young female (often Afro-Caribbean/Asian). Extreme fatigue, joint pain, photosensitive skin rash, mouth ulcers, hair loss, Raynaud's phenomenon, pleuritic chest pain.

EXAMINATION

Malar 'butterfly' rash across cheeks and nose (sparing nasolabial folds). Non-erosive arthritis. Pleural/pericardial rub.

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick (check for protein/blood indicating Lupus Nephritis). Blood pressure. DEFINITIVE: Bloods: ANA (positive in 99%), Anti-dsDNA (highly specific, correlates with disease activity). Low complement (C3/C4). Raised ESR (but normal CRP unless infected).

TREATMENT

Sun protection. First line: Hydroxychloroquine. Flares: NSAIDs, oral Corticosteroids. Severe organ involvement: Immunosuppressants (Azathioprine, Cyclophosphamide).

— : Lupus Nephritis (proteinuria, high BP) can progress to end-stage renal failure. Increased risk of miscarriages/clots due to Antiphospholipid Syndrome.

": A complex autoimmune disease where your immune system attacks various parts of your body, including skin, joints, and kidneys. It causes a characteristic butterfly face rash and severe fatigue."

DDx: T

Upper/Lower Limb Fractures & Soft Tissue Injuries

HISTORY

of trauma, fall, or sports injury. Severe pain, swelling, inability to bear weight or move the limb. 'Popping' or 'snapping' sound.

EXAMINATION

Deformity, severe swelling, bruising, bony tenderness. Check range of motion if safe. ALWAYS check neurovascular status (pulses, capillary refill, sensation) distal to the injury.

INVESTIGATIONS

BEDSIDE/GP: Immobilise the limb. Check distal pulses and sensation. DEFINITIVE: Plain X-rays (AP and Lateral views) of the injured area including the joints above and below. MRI for soft tissue/ligament injuries (e.g., ACL tears, rotator cuff).

TREATMENT

ranges from rest and casts to surgery with plates and screws to hold everything together."

— : Open fractures (bone breaking the skin) require urgent IV antibiotics and surgical washout to prevent osteomyelitis. Absent pulses indicate arterial injury (emergency).

": A broken bone or torn ligament/muscle. We use X-rays to see the bones and MRIs for the softer tissues."

Haematology & Oncology

14 conditions

Lethargy, SOB on exertion, palpitations. Hx of heavy periods or GI bleeding.

EXAMINATION

Conjunctival pallor, tachycardia. Koilonychia (spoon-shaped nails).

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick (haematuria check). Rectal exam (if GI bleed suspected). DEFINITIVE: FBC (microcytic, hypochromic). Low Ferritin. Endoscopy/Colonoscopy.

TREATMENT

Oral iron replacement (Ferrous Sulfate) for 3 months. Find and treat cause.

— : Unexplained weight loss, change in bowel habit, melaena (GI tract cancer).

": Lack of iron means poor red blood cell production. We treat with iron and find the cause."

Breast Cancer

HISTORY

Painless breast lump, changes in breast shape, nipple discharge (blood-stained), nipple retraction.

EXAMINATION

. DEFINITIVE: Triple Assessment: 1. Clinical Exam 2. Imaging (Mammogram/Ultrasound) 3. Pathology (Core biopsy).

INVESTIGATIONS

BEDSIDE/GP: Clinical breast

TREATMENT

s: Radiotherapy, Chemotherapy, Endocrine therapy (Tamoxifen).

— : Rapidly growing lump, inflammatory breast cancer (red, hot, swollen breast without infection).

": Cancer that starts in the breast tissue. We use a combination of scans, biopsies, and surgery to treat it."

DDx: Fibroadenoma, Breast Cyst, Mastitis/ Abscess, Fat Necrosis. Recent trauma points to fat necrosis. Pain/fever/ redness during breastfeeding strongly points to mastitis. A smooth, highly mobile lump in a young woman points to fibroadenoma. Hard, irregular, tethered lumps with skin dimpling suggest cancer. Ultrasound identifies solid vs cystic (fluid-filled) masses, ruling out simple cysts. Core biopsy provides definitive histological confirmation of malignancy.

Disseminated Intravascular Coagulation (DIC)

HISTORY

Critically ill patient (e.g., severe sepsis, major trauma, obstetric emergencies like placental abruption). Spontaneous bleeding from venepuncture sites, nose, gums, or GI tract. Bruising.

EXAMINATION

Extensive bruising (purpura/ecchymoses), oozing from IV lines, signs of the underlying severe illness/shock.

INVESTIGATIONS

BEDSIDE/GP: Continuous vital sign monitoring. DEFINITIVE: Bloods: Low platelets, prolonged PT and APTT, very low Fibrinogen, heavily elevated D- dimer. Blood film shows schistocytes (fragmented red cells).

TREATMENT

Treat the underlying cause aggressively (e.g., antibiotics for sepsis, deliver baby in abruption). Supportive blood products (Fresh Frozen Plasma, Platelets, Cryoprecipitate) if actively bleeding.

— : A highly lethal condition if the underlying cause is not rapidly reversed.

": A life-threatening complication of severe illness where the body's clotting system goes haywire. It forms tiny clots everywhere, using up all the clotting factors, which paradoxically causes severe, uncontrollable bleeding."

Essential Thrombocythaemia, Myelofibrosis)

HISTORY

Polycythaemia: Itching after a hot bath, ruddy complexion, headaches, blurry vision. ET: Bleeding or clotting episodes, throbbing in fingers. Myelofibrosis: Massive fatigue, weight loss, huge spleen.

EXAMINATION

Splenomegaly (can be massive in myelofibrosis). Plethora (red face) in Polycythaemia.

INVESTIGATIONS

BEDSIDE/GP: Assess for signs of hyperviscosity (confusion, visual changes) or stroke. DEFINITIVE: FBC (very high Hb in PV, high platelets in ET). JAK2 mutation test (positive in >95% of PV). Bone marrow biopsy.

TREATMENT

PV: Venesection (taking blood off regularly), Aspirin. ET: Hydroxycarbamide, Aspirin. Myelofibrosis: Ruxolitinib, supportive care.

— : High risk of transforming into acute myeloid leukaemia (AML) or suffering a major thrombotic event (stroke, DVT, MI).

": A group of slow-growing blood cancers where the bone marrow produces too many red blood cells or platelets. This makes the blood thick and prone to clotting. Treated with blood-thinning medicines or regular blood removal."

Haemochromatosis

HISTORY

. Hepatomegaly, bronze skin Raised Transferrin Saturation pigmentation, and signs of (>45%) and Ferritin. HFE genetic heart failure (late). testing confirms the diagnosis.

EXAMINATION

. DEFINITIVE: Bloods: Raised Transferrin Saturation (>45% is the best initial test) and high Ferritin. Genetic testing for HFE gene mutation. LFTs, HbA1c.

INVESTIGATIONS

BEDSIDE/GP: Blood pressure, BMI, joint

TREATMENT

Regular therapeutic venesection (blood letting) to reduce iron stores. Monitor for complications (cirrhosis, diabetes, heart failure).

— : Hepatocellular carcinoma (HCC) risk is significantly increased if cirrhosis has developed. Requires ultrasound screening.

": A genetic condition where the body absorbs too much iron from the diet. The iron builds up in organs like the liver and heart. We treat it by regularly removing some blood."

DDx: Alcoholic Liver Disease, Viral Hepatitis, Diabetes Mellitus (type 2). Fatigue, joint pain (2nd/3rd MCP), and 'bronze' skin. Family

Haemoglobinopathies (Thalassaemia)

HISTORY

Beta-Thalassaemia Major presents in the first year of life: severe anaemia, failure to thrive, jaundice. Thalassaemia

Minor/Trait is usually asymptomatic. Common in Mediterranean/Asian descent.

EXAMINATION

Pallor, jaundice, massive hepatosplenomegaly, skeletal deformities (frontal bossing, maxillary overgrowth) due to bone marrow expansion.

INVESTIGATIONS

BEDSIDE/GP: Assess growth parameters in children. DEFINITIVE: FBC (microcytic, hypochromic anaemia). Haemoglobin electrophoresis (confirms absent or reduced HbA and high HbF).

TREATMENT

Major: Lifelong regular blood transfusions every 3-4 weeks. Iron chelation therapy (e.g., Deferasirox) is crucial to prevent fatal iron overload. Stem cell transplant is the only cure.

— : Iron overload from repeated transfusions destroys the heart (heart failure), liver (cirrhosis), and endocrine glands. Requires strict adherence to chelation.

": A genetic blood disorder where the body cannot make normal haemoglobin (the oxygen carrier). Severe forms require lifelong blood transfusions to survive, along with medications to remove excess iron."

Haemophilia (A and B)

HISTORY

X-linked recessive (affects boys). Excessive bleeding after minor trauma or surgery. Spontaneous bleeding into joints (haemarthrosis) causing severe joint pain and swelling, or into muscles.

EXAMINATION

Hot, swollen, painful joint with restricted movement (due to blood in the joint). Extensive bruising.

INVESTIGATIONS

BEDSIDE/GP: Examine the joints for bleeds. DEFINITIVE: Coagulation screen: Prolonged APTT, normal PT and Platelets. Specific factor assays (Factor VIII low in Haemophilia A; Factor IX low in Haemophilia B).

TREATMENT

Prophylactic or on-demand IV infusions of the missing recombinant clotting factor (Factor VIII or IX). Desmopressin (DDAVP) for mild Haemophilia A.

— : Intracranial haemorrhage after minimal head trauma. Recurrent joint bleeds completely destroy the joint cartilage over time (haemophilic arthropathy).

": A genetic condition where the blood lacks a specific protein needed to form clots. Patients can bleed internally, especially into their joints, requiring injections of the missing clotting protein to stop the bleeding."

DDx: von Willebrand Disease (vWD), Vitamin K Deficiency, Warfarin use. X-linked (affects males). Bleeding into joints (haemarthrosis) or muscles. vWD usually causes mucosal bleeding (nose/periods). Swollen, painful joints Isolated prolonged APTT with a (knees/elbows) with limited normal PT. Factor VIII/IX assay range of motion. definitively identifies the deficiency and rules out vWD.

Leukaemia (General)

HISTORY

Fatigue (anaemia), severe infections (neutropenia), easy bruising/bleeding (thrombocytopenia), bone pain, night sweats.

EXAMINATION

Pallor, petechiae, lymphadenopathy, hepatosplenomegaly.

INVESTIGATIONS

BEDSIDE/GP: Examine lymph nodes/bruising. DEFINITIVE: FBC (pancytopenia or very high abnormal white cells). Blood film. Bone marrow biopsy.

TREATMENT

Intensive chemotherapy, blood transfusions, stem cell transplant.

— : Neutropenic sepsis (fever requires immediate IV antibiotics).

": A blood cancer where the bone marrow makes millions of useless white blood cells, crowding out the good cells. Treated with chemotherapy."

DDx: Aplastic Anaemia, Infectious Mononucleosis, Lymphoma, Vitamin B12 deficiency (causing pancytopenia). B-symptoms (fever, night sweats, weight loss). Spontaneous bruising. Hepatosplenomegaly, lymphadenopathy, and petechiae/purpura. FBC showing very high WBC or pancytopenia with 'blasts' on blood film. Bone marrow biopsy is the definitive diagnostic test.

Lymphoma (Hodgkin and Non-Hodgkin)

HISTORY

Painless, rubbery, enlarging lymph nodes (often in the neck, armpit, or groin). 'B symptoms': Drenching night sweats, unexplained fever, weight loss >10% in 6 months. Hodgkin specific: lymph node pain after drinking alcohol.

EXAMINATION

Palpable, non-tender, rubbery, asymmetrical lymphadenopathy. Hepatosplenomegaly.

INVESTIGATIONS

BEDSIDE/GP: Examine all lymph node stations. DEFINITIVE: Urgent 2-week-wait referral. Excision biopsy of a whole lymph node is gold standard (Hodgkin shows Reed-Sternberg 'owl eye' cells). PET-CT for staging.

TREATMENT

Chemotherapy (e.g., ABVD for Hodgkin, R-CHOP for Non-Hodgkin). Radiotherapy. High cure rates, especially for Hodgkin Lymphoma.

— : B-symptoms (night sweats, weight loss) indicate a poorer prognosis/more advanced disease. Massive mediastinal nodes causing SVC obstruction.

": A cancer of the lymphatic system (the body's infection-fighting network). It causes swollen, painless glands and drenching night sweats. We diagnose it by removing a gland for testing, and it is usually highly treatable with chemotherapy."

DDx: M

Metastatic Disease (General)

HISTORY

of cancer. New severe bone pain (bone mets), headaches/seizures (brain mets), jaundice/RUQ pain (liver mets), breathlessness (lung mets), severe weight loss.

EXAMINATION

Cachexia, hard enlarged lymph nodes, hepatomegaly, focal neurological signs.

INVESTIGATIONS

BEDSIDE/GP: Assess overall performance status. DEFINITIVE: CT staging scans, MRI brain, bone scan. Bloods: LFTs, Calcium (hypercalcaemia).

TREATMENT

Palliative chemotherapy, radiotherapy (for bone pain/brain mets), bisphosphonates for bones, adequate analgesia (opioids).

— : Spinal cord compression (back pain + leg weakness) and hypercalcaemia are oncological emergencies.

": Cancer that has spread from its original site to other organs. We use scans to find it and treat it with therapies aimed at controlling symptoms and slowing the spread."

Multiple Myeloma

HISTORY

Older patient. CRAB symptoms: Calcium (stones/confusion), Renal (thirst), Anaemia (fatigue), Bone pain (especially back pain). Recurrent infections.

EXAMINATION

Pallor, bony tenderness (spine/ribs). Signs of renal failure or hypercalcaemia (confusion).

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick (protein, though Bence Jones might not show on standard dip). DEFINITIVE: Serum Free Light Chains, Serum/Urine Electrophoresis (monoclonal paraprotein band). Bone marrow biopsy. Whole body MRI or low-dose CT for lytic bone lesions ('pepper pot skull').

TREATMENT

Chemotherapy (e.g., Bortezomib, Thalidomide, Dexamethasone). Autologous stem cell transplant. Bisphosphonates for bone disease.

— : Spinal Cord Compression (medical emergency: severe back pain, leg weakness, sensory loss, bowel/bladder incontinence).

": A cancer of the plasma cells in the bone marrow. It crowds out healthy blood cells, damages bones (causing pain and fractures), and strains the kidneys."

DDx: Bony Metastases (e.g. Breast/Prostate), Hyperparathyroidism, Monoclonal Gammopathy (MGUS). CRAB criteria: Calcium (high), Renal (failure), Anaemia, Bone (pain/ fractures). Persistent back pain in the elderly. Tenderness over the spine or ribs. Pallor (anaemia). Serum Protein Electrophoresis (Bence-Jones protein in urine). Whole-body MRI or CT Skeletal Survey shows 'punched-out' lytic lesions.

Pancytopenia

HISTORY

Symptoms of all three cell lines failing: Fatigue/breathlessness (low red cells - Anaemia), recurrent/severe infections (low white cells - Neutropenia), easy bruising/bleeding/petechiae (low platelets - Thrombocytopenia).

EXAMINATION

Pallor, fever/signs of infection, purpura/petechiae. Look for lymphadenopathy or splenomegaly.

INVESTIGATIONS

BEDSIDE/GP: Check vital signs (sepsis is a major risk). DEFINITIVE: FBC (low Hb, low WBC, low PLT). Blood film. Urgent Bone Marrow Biopsy to determine the cause (e.g., Aplastic Anaemia, Leukaemia, Myelodysplasia, B12 deficiency).

TREATMENT

Treat the underlying cause. Supportive care: blood transfusions, platelet transfusions, broad-spectrum IV antibiotics for neutropenic sepsis.

— : Neutropenic Sepsis (temperature >38 in a patient with neutropenia) is a life- threatening emergency requiring IV Piperacillin-Tazobactam immediately.

": A condition where the bone marrow fails to produce all three types of blood cells (red, white, and platelets). It leaves you exhausted, bleeding easily, and defenseless against infections. We must do a bone marrow test to find out why it stopped working."

Sickle Cell Disease / Crisis

HISTORY

Patient of African/Caribbean descent. Vaso-occlusive crisis: Sudden, severe bone pain (back, limbs, ribs). Chest syndrome: chest pain, SOB, fever.

EXAMINATION

Signs of anaemia (pallor, tachycardia). Jaundice (haemolysis). Swollen, painful joints/ bones. Dactylitis in children (swollen hands/feet).

INVESTIGATIONS

BEDSIDE/GP: SpO2 (hypoxia triggers sickling). Urinalysis. DEFINITIVE: FBC (low Hb, high reticulocytes). Blood film (sickle-shaped cells). Haemoglobin electrophoresis confirms diagnosis.

TREATMENT

Crisis: Strong analgesia (Opiates), aggressive IV hydration, Oxygen if hypoxic. Preventative: Hydroxycarbamide (increases HbF), Penicillin V prophylaxis, vaccinations.

— : Acute Chest Syndrome (fever, chest pain, lung infiltrates) is a major cause of death. Splenic sequestration crisis in children (sudden severe anaemia and shock).

": A genetic condition where red blood cells are shaped like sickles instead of donuts. They get stuck in blood vessels, causing extreme pain. We treat this with strong painkillers, fluids, and sometimes oxygen."

Mental Health & Psychiatry

14 conditions

(PTSD)

HISTORY

of exposure to a traumatic event. Re-experiencing (flashbacks, nightmares), avoidance of triggers, hyperarousal (startle response, insomnia), negative changes in mood/cognition.

EXAMINATION

Distressed when recalling trauma, hypervigilance.

INVESTIGATIONS

BEDSIDE/GP: Screen for co-morbidities like depression and substance abuse. DEFINITIVE: Clinical diagnosis based on specific psychiatric criteria.

TREATMENT

Trauma-focused CBT or Eye Movement Desensitisation and Reprocessing (EMDR). SSRIs/ SNRIs (Venlafaxine/Sertraline) if therapy is ineffective or patient prefers meds.

— : Risk of suicide or severe self-neglect. Dangerous impulsive behaviour.

": A psychological reaction to a deeply distressing or frightening event. It causes flashbacks, nightmares, and high stress levels. Specific therapies like EMDR and CBT are very effective."

Anorexia Nervosa

HISTORY

Significant weight loss, intense fear of weight gain, distorted body image, amenorrhoea.

EXAMINATION

Low BMI (<18.5), bradycardia, hypotension, hypothermia, lanugo hair, muscle wasting.

INVESTIGATIONS

BEDSIDE/GP: ECG (prolonged QTc, bradycardia), strict weight and BMI monitoring. DEFINITIVE: Bloods: U&Es (hypokalaemia if purging), FBC, TFTs, LFTs.

TREATMENT

Referral to specialist eating disorder services. CBT-ED, MANTRA. Careful nutritional rehabilitation.

— : BMI <13, HR <40, high risk of refeeding syndrome (requires inpatient medical admission).

": A serious mental health condition where a person keeps their body weight as low as possible through restricting food."

DDx: Hyperthyroidism, Inflammatory Bowel Disease (IBD), Malignancy, Major Depressive Disorder. Intense fear of gaining weight and distorted body image are specific to eating disorders and ABSENT in organic causes of weight loss. Lanugo hair, bradycardia, hypotension. No goitre or tremor (points away from hyperthyroidism). Normal TFTs rule out hyperthyroidism. Normal CRP/ Faecal Calprotectin rules out IBD.

Anxiety disorder: generalised (GAD)

HISTORY

Excessive, uncontrollable worry about multiple everyday things on most days for >6 months. Restlessness, fatigue, muscle tension, sleep disturbance, poor concentration.

EXAMINATION

Often normal physically. May appear tense, fidgety, or have a fast heart rate.

INVESTIGATIONS

BEDSIDE/GP: GAD-7 questionnaire to assess severity. DEFINITIVE: TFTs to rule out hyperthyroidism. Toxicology screen if substance abuse suspected.

TREATMENT

Mild: Psychoeducation, self-help. Moderate/Severe: Cognitive Behavioural Therapy (CBT) and/or SSRIs (e.g., Sertraline).

— : High suicide risk, co-morbid severe depression, self-medication with large amounts of alcohol/drugs.

": A persistent, long-term condition where you feel highly anxious and worried about various things most days, making it hard to function. Talking therapies and medications can help."

DDx: Anxiety disorder: post-traumatic stress disorder

Anxiety, phobias, OCD

HISTORY

OCD: Intrusive, distressing thoughts (obsessions) and repetitive behaviours/mental acts (compulsions) performed to relieve anxiety. Phobias: Disproportionate, irrational fear of a specific object/situation leading to avoidance. Panic attacks.

EXAMINATION

Observed anxiety, autonomic arousal (sweating, tachycardia). Skin excoriation or chapped hands (from OCD hand washing).

INVESTIGATIONS

BEDSIDE/ Psychiatric questionnaires (e.g., Y-BOCS for OCD). Assess impact on daily BEDSIDE/GP: functioning. DEFINITIVE: Clinical diagnosis. Rule out hyperthyroidism or substance misuse.

TREATMENT

s.

— : High risk of severe social isolation, depression, and suicide if untreated. Obsessions involving harm to self/others require careful risk assessment.

": Mental health conditions driven by intense fear or anxiety. OCD causes repetitive, distressing thoughts that you try to fix with repetitive actions. Phobias are extreme fears of specific things. Both are very treatable with specific talking therapies and medications."

Attention Deficit Hyperactivity Disorder (ADHD)

HISTORY

Symptoms present before age 12, in >1 setting (home and school/work). Inattention (easily distracted, forgets things), Hyperactivity (fidgeting, can't sit still), Impulsivity (interrupts, acts without thinking).

EXAMINATION

Observation of behaviour during consultation (though may mask symptoms).

INVESTIGATIONS

BEDSIDE/ Conners' rating scales or similar questionnaires completed by parents/teachers/ BEDSIDE/GP: patient. DEFINITIVE: Specialist psychiatric/paediatric assessment.

TREATMENT

Children: Parent-training/education first. Meds if severe. Adults/Severe: Stimulants (Methylphenidate, Lisdexamfetamine) or non-stimulants (Atomoxetine).

— : Cardiovascular risks with stimulant medications (must check baseline BP, HR, and ECG if family hx of sudden cardiac death). Increased risk of substance abuse.

": A neurodevelopmental condition that affects focus, self-control, and physical restlessness. It's managed with specific behavioural strategies and often medication that helps the brain concentrate."

Autism Spectrum Disorder

HISTORY

. DEFINITIVE: Multidisciplinary specialist assessment (Paediatrician, Speech and Language, Psychology). Questionnaires like the M-CHAT or ADOS.

EXAMINATION

Observation of play (in children), interaction style, literal interpretation of language.

INVESTIGATIONS

BEDSIDE/GP: Developmental milestones

TREATMENT

No medical 'cure'. Supportive therapies (Speech and Language Therapy, Occupational Therapy). Educational support (EHCP in schools). Routine and structured environment.

— : Regression of previously acquired language or social skills requires urgent neurological investigation.

": A lifelong developmental condition affecting how people communicate and interact with the world. People with autism may have intense special interests and prefer strict routines."

DDx: B

Bipolar Disorder

HISTORY

of distinct manic or hypomanic episodes (reduced need for sleep, grandiosity) rules out unipolar depression. Pressured speech and flight of ideas present in mania. Physical signs of hyperthyroidism (tremor, weight loss) should prompt thyroid check. Normal Thyroid Function Tests (TFTs) rule out thyrotoxicosis. Negative urine drug screen rules out stimulant-induced mania (e.g., cocaine/amphetamines).

EXAMINATION

During mania: pressured speech, flight of ideas, extreme distractibility, poor insight.

INVESTIGATIONS

BEDSIDE/GP: Psychiatric risk assessment (risk to self and others). DEFINITIVE: Bloods to rule out organic causes of mania (TFTs, calcium). Urine drug screen.

TREATMENT

Acute mania: Haloperidol, Olanzapine, or Quetiapine. Maintenance: Lithium first-line (target serum level 0.6–0.8 mmol/L; monitor TFT/U&E). Valproate: AVOID in women of childbearing potential (high teratogenic risk — MHRA 2023). Psychological therapies.

— : Active suicidal ideation, psychotic symptoms (delusions/hallucinations), reckless behavior risking harm.

": A mental health condition that affects moods, causing extreme highs (mania) and profound lows (depression)."

DDx: Major Depressive Disorder, Schizophrenia, Substance-induced mood disorder, Hyperthyroidism. A clear

Borderline)

HISTORY

Long-standing, pervasive patterns of inner experience and behaviour. EUPD/Borderline: intense fear of abandonment, unstable intense relationships, chronic feelings of emptiness, emotional lability, impulsivity, recurrent self-harm or suicidal threats.

EXAMINATION

Patient may exhibit intense, shifting emotions during consultation. Evidence of self-harm scars (e.g., cutting). May split staff (idealizing some, demonizing others).

INVESTIGATIONS

BEDSIDE/GP: Risk assessment for suicide, self-harm, and vulnerability. DEFINITIVE: Psychiatric evaluation using structured clinical interviews. Rule out bipolar disorder or substance abuse, which often co-occur.

TREATMENT

."

— : High risk of completed suicide, especially during times of crisis or relationship breakdown. High risk of substance abuse and accidental overdose.

": Deeply ingrained patterns of thinking and behaving that make relationships and managing emotions extremely difficult. People with borderline personality disorder feel emotions very intensely and may self-harm. Specific talking therapies are the main"

DDx: Personality Disorders (e.g., Emotionally Unstable /

Depression

HISTORY

Pervasive low mood, lack of enjoyment (anhedonia), poor sleep (early morning waking), low energy, weight changes, feelings of worthlessness, suicidal thoughts.

EXAMINATION

Psychomotor retardation, flat affect, poor eye contact.

INVESTIGATIONS

BEDSIDE/GP: PHQ-9 score. Suicide risk assessment. DEFINITIVE: Bloods (TFTs, B12, Calcium) to rule out organic causes.

TREATMENT

CBT, SSRIs (Sertraline, Citalopram). Safety planning.

— : Active suicidal planning, psychosis (delusions of guilt), severe self-neglect.

": A medical illness affecting brain chemistry, causing persistent sadness and lack of energy. Highly treatable with talking therapies and antidepressants."

Non-Accidental Injury (Child Safeguarding)

HISTORY

Injury mechanism described by parents is inconsistent with the child's developmental stage (e.g., a 2-month-old 'rolling off' a sofa). Delayed presentation to healthcare. Changing or vague stories. Frequent A&E attendances.

EXAMINATION

Bruises in non-mobile infants ('those who don't cruise rarely bruise'). Bruises on protected areas (ears, neck, abdomen, inner thighs). Bite marks, cigarette burns, retinal haemorrhages.

INVESTIGATIONS

BEDSIDE/Thoroughly document the exact size, shape, and colour of all injuries. Use body maps. BEDSIDE/GP: Examine the child completely undressed. DEFINITIVE: Skeletal survey (full body X-rays looking for occult/healing fractures, especially rib or spiral long-bone fractures). CT Head if under 1 or head injury suspected. Ophthalmology review for retinal haemorrhages.

TREATMENT

ADMIT the child to a paediatric ward for safety if there is any suspicion. Immediate referral to senior Paediatrician and hospital Safeguarding Team. Involve Social Services and Police.

— : Failing to recognize NAI can result in the child being sent back to a dangerous environment, leading to severe injury or death. ALWAYS trust your instinct and escalate concerns.

": Injuries in a child that raise suspicion they were not caused by an accident. Certain patterns, like bruises on babies who can't walk, or stories that don't make sense, must be taken extremely seriously by doctors to keep the child safe."

Schizophrenia

HISTORY

. DEFINITIVE: Urine drug screen to rule out substance-induced psychosis. Bloods/CT head to rule out organic brain disease.

EXAMINATION

Lack of insight. Blunted affect, thought blocking, auditory hallucinations evident during consultation (e.g., looking around the room at empty space).

INVESTIGATIONS

BEDSIDE/ Full psychiatric

TREATMENT

-resistant cases. CBT for psychosis, family intervention, social support.

— : Command hallucinations (voices telling the patient to harm themselves or others). Neuroleptic Malignant Syndrome (fever, rigidity, confusion) from medication.

": A severe mental health condition causing a disconnect from reality. You might hear voices or hold unusual beliefs. It is treated with a combination of medication and talking therapies."

DDx: Drug-induced Psychosis, Delirium, Bipolar Disorder (Manic episode), Brain Tumour. Symptoms >1 month: Auditory hallucinations (third person), delusions of control, and 'negative' symptoms (apathy/ withdrawal). Disordered thought (knight's move thinking). No clouding of consciousness (rules out delirium). Urine drug screen (cannabis/ stimulants). Bloods (TFTs, Calcium) and MRI Brain to rule out organic/metabolic causes of psychosis.

Self-Harm

HISTORY

Intentional self-injury (cutting, burning, overdose, scratching). Patient may report overwhelming distress, emotional numbness, or a desire to punish themselves. Not always associated with suicidal intent.

EXAMINATION

Fresh wounds, scars in varying stages of healing (often on forearms, thighs, or abdomen).

INVESTIGATIONS

BEDSIDE/Immediate triage of physical injuries (e.g., toxidrome for overdose, wound care). BEDSIDE/GP: COMPREHENSIVE psychiatric risk assessment. DEFINITIVE: Paracetamol level (mandatory in any intentional overdose), toxicology screen, ECG. Baseline bloods (U&Es, LFTs).

TREATMENT

Medical stabilization of injuries. Psychosocial assessment by the liaison psychiatry team before discharge. Harm-minimization advice. Referral to community mental health teams or DBT therapies.

— : High intent to die (e.g., writing a note, taking precautions against discovery, violent methods) indicates a severe risk of completed suicide and requires urgent psychiatric admission.

": Deliberately injuring oneself as a way of coping with overwhelming emotional pain. It must always be taken seriously. After treating any physical injuries, the priority is a thorough mental health assessment to provide proper support and therapy."

Somatisation (Somatic Symptom Disorder)

HISTORY

Multiple, chronic, medically unexplained physical symptoms (e.g., pain, GI upset, fatigue) causing significant distress and impairment in daily life. Constant worry about the symptoms.

EXAMINATION

is generally normal, or findings do not match the severity of the symptoms described.

INVESTIGATIONS

to avoid unnecessary repetition. DEFINITIVE: Rule out organic causes with targeted, evidence-based tests. ONCE ruled out, stop ordering further invasive tests to 'prove' nothing is wrong.

TREATMENT

Validation of the patient's distress (the pain is real to them). Regular, scheduled appointments with a single trusted GP. Cognitive Behavioural Therapy (CBT). Treat co-morbid depression/ anxiety with SSRIs.

— : Missing a genuine, rare organic pathology by misattributing new red-flag symptoms to their somatic disorder.

": A condition where psychological distress and anxiety are experienced as very real, severe physical symptoms. Your body is sounding an alarm, but there is no physical disease. Talking therapies and a strong doctor-patient relationship help manage the distress."

Substance Use Disorder (Alcohol Dependence)

HISTORY

Strong desire/compulsion to drink. Difficulty controlling intake. Physiological withdrawal state when drinking stops (tremor, sweating, anxiety). Tolerance (needs more to get the same effect). Neglect of other interests. Continued use despite harmful consequences.

EXAMINATION

May smell of alcohol. Look for stigmata of chronic liver disease (spider naevi, jaundice, hepatomegaly). Tremor, sweating, tachycardia (signs of withdrawal).

INVESTIGATIONS

BEDSIDE/GP: CAGE questionnaire, AUDIT score. Check vital signs for withdrawal. DEFINITIVE: LFTs (raised GGT, AST, ALT), FBC (Macrocytic anaemia/high MCV), U&Es, Clotting profile.

TREATMENT

involves a medically supervised detox with specific vitamins to protect the brain, followed by long-term support."

— : Delirium Tremens (DTs): A severe, life-threatening withdrawal state characterized by confusion, visual hallucinations (seeing insects), severe tremor, and seizures. Medical emergency.

": A chronic condition where a person is physically and psychologically addicted to alcohol. Stopping suddenly can be dangerous, causing shaking and seizures."

Obstetrics & Gynaecology

26 conditions

Atrophic Vaginitis

HISTORY

Post-menopausal woman. Vaginal dryness, burning, itching, dyspareunia (painful sex), occasional light spotting, recurrent UTIs or urinary frequency.

EXAMINATION

. Loss of vaginal rugae.

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick (if urinary symptoms to rule out UTI). DEFINITIVE: Clinical diagnosis based on symptoms and low oestrogen state. Swabs if infection suspected.

TREATMENT

First line: Non-hormonal vaginal moisturisers and lubricants. Second line: Topical vaginal oestrogen (creams, pessaries, or rings) unless contraindicated.

— : Any significant post-menopausal bleeding must still be investigated with a 2- week wait referral for an ultrasound to rule out endometrial cancer.

": Thinning and drying of the vaginal walls due to a drop in oestrogen after the menopause. It can be uncomfortable, but vaginal moisturisers and local oestrogen creams work very well."

Bacterial Vaginosis

HISTORY

Thin, watery, grey/white vaginal discharge with a characteristic 'fishy' odour, especially noticeable after sex. NO soreness or severe itching.

EXAMINATION

Thin, homogenous discharge coating the vaginal walls. No signs of inflammation (vulva/ vagina are not red or sore).

INVESTIGATIONS

BEDSIDE/ Vaginal pH > 4.5. 'Whiff test' (adding potassium hydroxide to sample produces fishy BEDSIDE/GP: smell). DEFINITIVE: High vaginal swab for microscopy (shows 'clue cells' and reduced lactobacilli).

TREATMENT

Oral Metronidazole for 5-7 days, OR topical Metronidazole/Clindamycin gel. Advise avoiding vaginal douching and perfumed soaps.

— : Increased risk of pre-term labour if pregnant and symptomatic. Increased risk of acquiring other STIs.

": An imbalance of the natural bacteria in the vagina, causing a watery discharge with a fishy smell. It is not a sexually transmitted infection. Antibiotics and avoiding scented soaps help clear it."

Breast Abscess / Mastitis (Non-Lactational)

HISTORY

Painful, red, hot swelling in the breast. Often associated with smoking (periductal mastitis) or nipple piercing. Fever, malaise.

EXAMINATION

Fluctuant, tender, erythematous breast mass. Nipple discharge/retraction may be present.

INVESTIGATIONS

BEDSIDE/GP: Vital signs (fever). DEFINITIVE: Breast Ultrasound is essential to confirm an abscess collection. Fine Needle Aspiration (FNA) of pus for culture.

TREATMENT

Antibiotics (Co-amoxiclav). Ultrasound-guided needle aspiration of the abscess (often needs repeating). Smoking cessation is vital to prevent recurrence.

— : Inflammatory breast cancer can perfectly mimic mastitis/abscess (red, swollen, hot breast). If symptoms do not completely resolve with antibiotics, urgent 2-week-wait referral is mandatory.

": A painful collection of pus inside the breast tissue, usually linked to smoking or blocked ducts. It requires antibiotics and a needle to drain the pus. If it doesn't heal quickly, we must scan it to ensure it isn't something more serious."

Cervical Cancer

HISTORY

Post-coital bleeding (bleeding after sex), intermenstrual bleeding, abnormal vaginal discharge, pelvic pain. Often asymptomatic and picked up on screening.

EXAMINATION

.

INVESTIGATIONS

BEDSIDE/GP: Smear test (if due for screening). Full STI screen. DEFINITIVE: Urgent 2-week-wait colposcopy. Cervical biopsy. CT/MRI pelvis for staging.

TREATMENT

Early: LLETZ (Large Loop Excision of the Transformation Zone) or Radical Hysterectomy. Advanced: Chemoradiotherapy.

— : Any unexplained visible mass on the cervix or persistent post-coital bleeding needs an urgent 2-week-wait referral.

": Cancer of the neck of the womb, usually caused by the HPV virus. We catch early changes through the cervical smear program to prevent it developing into cancer."

Cervical Screening (HPV Programme)

HISTORY

. Symptoms prompting urgent referral (not screening): post-coital bleeding, intermenstrual bleeding, abnormal vaginal discharge.

EXAMINATION

at time of screening: visual assessment of cervix for obvious abnormality (if found, refer urgently — do NOT proceed with routine smear).

INVESTIGATIONS

BEDSIDE/GP: Liquid-based cytology (LBC) cervical sample — primary HPV testing. DEFINITIVE: If HPV positive → cytology reflex test. Colposcopy if high-grade dyskaryosis, HPV-positive with low-grade changes at two consecutive screenings, or any suspicious cervical appearance.

TREATMENT

HPV negative: Routine recall (5-yearly age 25–49; 5-yearly age 50–64 per current NHS programme). HPV positive, no dyskaryosis: 12-month repeat. Low-grade dyskaryosis (CIN1): Usually observed (spontaneous regression common). High-grade (CIN2/3): Large Loop Excision of the Transformation Zone (LLETZ). Vaccination: HPV vaccine (Gardasil-9) offered to all 12–13 year olds (boys and girls) in UK school programme; also offered to men who have sex with men up to age 45.

— : Any visible cervical lesion, ulcer, or mass → urgent 2-week wait referral regardless of smear result. Post-menopausal bleeding or persistent intermenstrual bleeding requires investigation.

": The smear test checks for a virus called HPV that can cause changes to the cervix over time. Finding it early means we can monitor or treat any changes before they become cancer."

Cord Prolapse

HISTORY

Obstetric emergency. Usually occurs after the membranes rupture ('waters break'). The mother may feel something in her vagina.

EXAMINATION

to feel the cord. CTG monitoring of fetal heart. DEFINITIVE: Clinical diagnosis. No further

INVESTIGATIONS

needed before action.

TREATMENT

EMERGENCY. Call for help (Crash Caesarean). Examiner keeps their hand in the vagina to push the baby's head UP and OFF the cord. Place mother in knee-chest position. Immediate delivery.

— : If the cord is compressed between the baby's head and the pelvis, the baby will suffer profound hypoxia and die within minutes. Do NOT attempt to push the cord back inside.

": A severe birth emergency where the baby's umbilical cord drops down into the birth canal ahead of the baby. The baby's head squashes the cord, cutting off its oxygen, requiring an immediate emergency caesarean."

Ectopic Pregnancy

HISTORY

of PID, IVF, or previous ectopic.

EXAMINATION

Lower abdominal tenderness, cervical motion tenderness on bimanual exam. Signs of shock (tachycardia, hypotension) if ruptured.

INVESTIGATIONS

BEDSIDE/ Urinary pregnancy test (UPT) is MUST DO for any female of childbearing age with abdo pain. Vital signs. BEDSIDE/GP: DEFINITIVE: Transvaginal Ultrasound (empty uterus, adnexal mass). Serum bHCG (suboptimal rise).

TREATMENT

Expectant (if small, low HCG), Medical (Methotrexate injection), or Surgical (Laparoscopic salpingectomy).

— : Ruptured ectopic: severe acute abdominal pain, hypovolaemic shock, syncope. A surgical emergency.

": A pregnancy that is growing outside the womb, usually in a fallopian tube. It cannot survive and can cause dangerous internal bleeding if not treated."

DDx: Miscarriage, Pelvic Inflammatory Disease (PID), Ruptured Ovarian Cyst, Appendicitis. Any woman of childbearing age with abdominal pain is ectopic until proven otherwise. Purulent discharge/fever points more to PID. Cervical motion tenderness can be present in both ectopic and PID. Rightsided pain could be appendicitis. Positive pregnancy test rules out PID/Cyst/Appendicitis. Transvaginal ultrasound showing an empty uterus with high serum beta-hCG strongly confirms ectopic and rules out normal intrauterine pregnancy/ miscarriage.

Endometrial Cancer

HISTORY

Post-menopausal bleeding (PMB) is the hallmark. Intermenstrual bleeding or heavy periods in younger women. Obesity,

PCOS, Tamoxifen use.

EXAMINATION

Abdominal palpation often normal. Speculum exam to view cervix/vagina. Bimanual exam (enlarged uterus).

INVESTIGATIONS

BEDSIDE/GP: Pregnancy test in premenopausal women. DEFINITIVE: Transvaginal Ultrasound (TVUS) -> Endometrial thickness >4mm is abnormal. Pipelle endometrial biopsy or Hysteroscopy with biopsy.

TREATMENT

Total abdominal hysterectomy and bilateral salpingo-oophorectomy (TAH & BSO). +/- Radiotherapy.

— : Any post-menopausal bleeding must be referred on a 2-week wait suspected cancer pathway.

": Cancer of the lining of the womb. The most common symptom is bleeding after the menopause. We investigate it with an ultrasound and a small biopsy."

DDx: Atrophic Vaginitis, Cervical Cancer, Endometrial Polyps. Post-menopausal bleeding is cancer until proven otherwise. Vaginal dryness/dyspareunia suggests atrophy. Speculum exam visualizes the cervix (ruling out gross cervical cancer) and thin, dry vaginal walls (atrophy). Transvaginal ultrasound (endometrial thickness >4mm is suspicious). Pipelle biopsy definitively confirms malignancy and rules out benign polyps.

Endometriosis

HISTORY

Cyclical pelvic pain, severe dysmenorrhoea (painful periods), dyspareunia (painful sex), dyschezia (painful bowel movements), subfertility.

EXAMINATION

Often normal. May have fixed, retroverted uterus or tender nodularity in the posterior fornix on bimanual exam.

INVESTIGATIONS

BEDSIDE/GP: Urine dip/pregnancy test, STI screen/swabs to rule out PID. DEFINITIVE: Pelvic Ultrasound (may show 'chocolate cysts' / endometriomas). Gold standard: Laparoscopy for direct visualization.

TREATMENT

Pain relief (NSAIDs/Paracetamol). Hormonal: COCP (back-to-back), Progesterone, Mirena IUS. Surgical: Excision/ablation of lesions.

— : Bowel/ureter obstruction in severe deep infiltrating endometriosis.

": Tissue similar to the womb lining grows outside the womb, like on the ovaries. It bleeds during your period, causing inflammation and severe pain."

DDx: Pelvic Inflammatory Disease (PID), Uterine Fibroids, IBS, Ovarian Cysts. Cyclical pain that matches the menstrual cycle (dysmenorrhoea) and deep dyspareunia. Acute fever/ discharge suggests PID instead. Fixed, retroverted uterus or tender nodules in the posterior fornix suggest endometriosis. Enlarged, firm, irregular uterus suggests fibroids. Normal infection swabs rule out PID. Pelvic ultrasound may show endometriomas ('chocolate cysts') but can be normal. Diagnostic laparoscopy is the gold standard.

Fibroadenoma

HISTORY

Young woman (typically 15-30). A painless, smooth, highly mobile lump in the breast. Often noticed incidentally while washing.

EXAMINATION

. DEFINITIVE: Must refer on 2-week wait if new lump to be safe. Triple assessment: Clinical exam, Ultrasound (as young breast is dense), and Core biopsy/FNA.

INVESTIGATIONS

BEDSIDE/GP: Clinical breast

TREATMENT

Reassurance once confirmed. They are entirely benign. Can be surgically excised if large (>3cm) or causing significant cosmetic/physical discomfort.

— for breast cancer and are NOT features of a fibroadenoma.

": A very common, completely harmless breast lump made of fibrous and glandular tissue. It feels like a smooth marble that moves around easily. It does not turn into cancer."

Fibroids (Uterine Leiomyomas)

HISTORY

Often asymptomatic. Heavy menstrual bleeding (menorrhagia), pelvic pressure, urinary frequency, dyspareunia, subfertility.

EXAMINATION

.

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick/pregnancy test. Check for signs of anaemia (pallor). DEFINITIVE: FBC (iron deficiency anaemia). Transvaginal or Pelvic Ultrasound confirms diagnosis.

TREATMENT

if they cause symptoms."

— : Rapid growth of fibroid (rule out leiomyosarcoma - very rare). Severe anaemia causing heart failure.

": Non-cancerous growths of muscle in the womb. They are very common and can cause heavy periods, but only need"

DDx: Endometrial Cancer, Ovarian Cancer, Pregnancy, Adenomyosis. Slow growth over years. Pregnancy (amenorrhoea) and Endometrial cancer (post-menopausal bleeding) are key rule-outs. Enlarged, firm, non-tender, irregular uterus. Pregnancy (soft uterus) and Adenomyosis (globular, tender uterus). Negative beta-hCG rules out pregnancy. Ultrasound shows well-defined hypoechoic masses (fibroids). Normal CA-125 rules out most ovarian cancers.

Mastitis (Lactational)

HISTORY

Breastfeeding woman. Sudden onset of a painful, red, swollen wedge of the breast. Fever, chills, and flu-like aches.

EXAMINATION

A localized, warm, tender, erythematous, wedge-shaped area of the breast. Fever.

INVESTIGATIONS

BEDSIDE/GP: Check maternal temperature and pulse. DEFINITIVE: Clinical diagnosis. Breast milk culture only if unresponsive to antibiotics or severe.

TREATMENT

KEEP BREASTFEEDING/expressing milk (prevents engorgement/abscess). Warm compresses, Paracetamol/Ibuprofen. Oral Flucloxacillin for 10-14 days if infective.

— : Breast Abscess (a fluctuant, tender, swinging-fever lump) requiring surgical incision & drainage or ultrasound-guided aspiration.

": Inflammation or infection of the breast tissue while breastfeeding, usually due to a blocked milk duct. It causes a painful red patch and flu-like symptoms. You MUST keep feeding/pumping from that breast to clear it, alongside taking antibiotics."

Menopause

HISTORY

Cessation of periods for >12 months. Vasomotor symptoms (hot flushes, night sweats), vaginal dryness/atrophy, mood changes, joint aches, poor sleep.

EXAMINATION

Often normal. May have atrophic vaginitis on speculum exam (pale, dry, thinned vaginal mucosa).

INVESTIGATIONS

BEDSIDE/GP: Weight, blood pressure, breast check if appropriate. DEFINITIVE: Clinical diagnosis for women >45. FSH blood test ONLY needed if <45 or atypical presentation.

TREATMENT

Lifestyle advice. Hormone Replacement Therapy (HRT): Oestrogen (+ Progesterone if uterus intact to prevent endometrial cancer). Vaginal oestrogen for dryness.

— : Post-menopausal bleeding (PMB) is endometrial cancer until proven otherwise (requires 2-week-wait urgent ultrasound).

": The natural time when your ovaries stop producing eggs and your hormone levels drop, stopping your periods. We can use hormone tablets or patches to relieve the uncomfortable symptoms."

Miscarriage

HISTORY

Vaginal bleeding and crampy lower abdominal pain before 24 weeks gestation. Loss of pregnancy symptoms.

EXAMINATION

Speculum: assessing blood volume, whether the cervical os is open or closed, and looking for products of conception in the os.

INVESTIGATIONS

BEDSIDE/GP: Urinary Pregnancy Test. Vital signs to assess for shock if heavy bleeding. DEFINITIVE: Transvaginal Ultrasound (TVUS) to confirm viability or empty sac. Serial serum bHCG (if falling, confirms loss). Bloods: Group & Save (need to know Rhesus status).

TREATMENT

Expectant (let nature take its course), Medical (Vaginal Misoprostol to induce contractions), or Surgical (Manual Vacuum Aspiration / ERPC). Give Anti-D if mother is Rhesus negative.

— : Always rule out ectopic pregnancy. Septic miscarriage: fever, foul-smelling discharge, severe pain (needs IV antibiotics and urgent surgery).

": The tragic loss of a pregnancy in the first 24 weeks. It is very common and usually caused by random genetic errors in the embryo, not by anything the mother did. We manage it safely with observation, tablets, or a minor operation."

Ovarian Cancer

HISTORY

Often vague and present late. 'IBS-like' symptoms in a woman >50: persistent abdominal bloating, early satiety (feeling full quickly), pelvic/abdo pain, increased urinary urgency/ frequency.

EXAMINATION

. DEFINITIVE: CA125 blood test (tumour marker). If elevated -> Urgent Pelvic/Transvaginal Ultrasound. CT chest/abdomen/pelvis for staging.

INVESTIGATIONS

BEDSIDE/GP: Abdominal and bimanual pelvic

TREATMENT

MDT approach. Surgical resection (Total Abdominal Hysterectomy, Bilateral Salpingo- Oophorectomy, and omentectomy) + Platinum-based Chemotherapy.

— : Any woman >50 with new onset 'IBS' symptoms must be investigated for ovarian cancer. Massive ascites.

": Cancer of the ovaries. Because the ovaries are deep inside the pelvis, it often grows quietly, causing vague symptoms like bloating and feeling full, which is why it is caught late."

DDx: IBS, Fibroids, Endometriosis, Ovarian Cysts (Benign). Persistent abdominal bloating, feeling full quickly, and increased urinary frequency in women >50. Palpable abdominal mass or ascites. Elevated CA-125 (>35). Ultrasound shows complex/solid cystic masses. CT for staging. P

Pelvic Inflammatory Disease (PID)

HISTORY

Bilateral lower abdominal pain, deep dyspareunia (pain during sex), abnormal vaginal discharge, fever, irregular vaginal bleeding. Often follows an STI (Chlamydia/Gonorrhoea).

EXAMINATION

Fever. Bimanual exam: Cervical excitation (severe pain on moving the cervix), adnexal tenderness.

INVESTIGATIONS

BEDSIDE/GP: Pregnancy test (to rule out ectopic). Vital signs. DEFINITIVE: Endocervical and High Vaginal Swabs (for NAAT Chlamydia/Gonorrhoea and culture). Pelvic ultrasound (to check for tubo-ovarian abscess).

TREATMENT

Empiric antibiotics IMMEDIATELY (do not wait for swab results): IM Ceftriaxone + Oral Doxycycline (14 days) + Oral Metronidazole (14 days). Treat partners.

— : Ectopic pregnancy (always rule out). Tubo-ovarian abscess rupture (severe sudden pain, peritonitis, shock). Future risks include infertility.

": A severe infection of the womb and fallopian tubes, usually travelling up from the vagina. Requires a strong course of multiple antibiotics to prevent permanent damage or infertility."

Pelvic Organ Prolapse

HISTORY

Older or multiparous woman. Sensation of a 'lump' or 'dragging' feeling coming down in the vagina. Urinary symptoms (stress incontinence, incomplete emptying), bowel symptoms (need to press on vagina to defecate), dyspareunia.

EXAMINATION

(assessing anterior and posterior walls). May see prolapse of the bladder (cystocele), rectum (rectocele), or uterus protruding into or out of the vagina. Assess with patient bearing down/coughing.

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick to rule out concurrent UTI. Assess BMI. DEFINITIVE: Usually a clinical diagnosis. Urodynamic studies if concurrent complex urinary incontinence is planned for surgery.

TREATMENT

Conservative: Weight loss, smoking cessation (reduces coughing), pelvic floor exercises, vaginal ring pessaries. Surgical: Anterior/posterior colporrhaphy, vaginal hysterectomy.

— : Complete uterine procidentia (uterus fully outside the vagina) can lead to severe ulceration, bleeding, and urinary retention due to kinking of the urethra.

": The muscles and ligaments supporting the pelvic organs (bladder, womb, or bowel) have weakened, allowing them to bulge down into the vagina. It causes a dragging sensation but can be helped with exercises, support devices, or surgery."

Placenta Praevia

HISTORY

Pregnancy >20 weeks. Sudden, PAINLESS, bright red vaginal bleeding. Often identified asymptomatically on the 20-week anomaly scan.

EXAMINATION

can provoke massive, catastrophic haemorrhage. Placenta Accreta (placenta deeply invades the uterine wall) is a major risk if mother has had previous C-sections.

INVESTIGATIONS

BEDSIDE/GP: Vital signs (assess mother for shock). CTG for fetal wellbeing. DEFINITIVE: Transvaginal/Transabdominal Ultrasound confirms the placenta is covering or lying very close to the internal cervical os. Bloods: Group and Save, FBC, Clotting.

TREATMENT

If heavy bleeding: admit, resuscitate, emergency Caesarean. If stable: conservative management, admit for observation, elective Caesarean at 37-38 weeks.

— : Digital vaginal

": The placenta has attached itself very low down in the womb, covering the exit (cervix). It causes sudden, painless bleeding. The baby cannot be born naturally and must be delivered safely by a planned Caesarean section."

Placental Abruption

HISTORY

Pregnancy >20 weeks. Sudden, severe, CONTINUOUS abdominal pain, with or without dark vaginal bleeding (bleeding can be concealed inside). Risk factors: trauma, pre-eclampsia, cocaine use, smoking.

EXAMINATION

The uterus is 'woody' (hard, tense) and exquisitely tender. Fetal distress on CTG.

INVESTIGATIONS

BEDSIDE/GP: Immediate vital signs. Continuous CTG monitoring. DEFINITIVE: Clinical diagnosis! Ultrasound is NOT reliable for ruling it out. Bloods: Group and Save, crossmatch, FBC, clotting (high risk of DIC).

TREATMENT

Obstetric emergency. Resuscitation (IV fluids/blood). Urgent delivery: Emergency Caesarean section (if fetal distress/heavy bleeding) or induction of labour if fetus is stable or has tragically died.

— : High risk of Disseminated Intravascular Coagulation (DIC), major maternal shock, and fetal death. Do not delay delivery waiting for an ultrasound.

": The placenta has prematurely torn away from the wall of the womb. It causes extreme pain and dangerous internal bleeding, cutting off the baby's oxygen. It requires emergency delivery, usually by a crash Caesarean."

Polycystic Ovary Syndrome (PCOS)

HISTORY

Oligomenorrhoea or amenorrhoea (irregular or no periods), subfertility, hirsutism (excess body/facial hair), acne, weight gain/obesity.

EXAMINATION

Acanthosis nigricans (dark, velvety skin folds due to insulin resistance), signs of hyperandrogenism (hirsutism, acne), high BMI.

INVESTIGATIONS

BEDSIDE/GP: Weight, BMI, Blood pressure. DEFINITIVE: Rotterdam Criteria (needs 2 of 3): 1. Irregular periods 2. Clinical/biochemical hyperandrogenism 3. Polycystic ovaries on ultrasound. Bloods: High LH, normal FSH, high testosterone.

TREATMENT

s."

— : Endometrial hyperplasia/cancer risk is increased due to unopposed oestrogen if woman has <4 periods a year (need to induce withdrawal bleeds).

": A hormonal imbalance affecting the ovaries, causing irregular periods, excess hair growth, and difficulty getting pregnant. Losing weight and using the contraceptive pill are common"

DDx: Cushing's Syndrome, Congenital Adrenal Hyperplasia, Hypothyroidism, Prolactinoma. Irregular periods (oligomenorrhoea) and symptoms of excess androgens (acne, hirsutism). Hirsutism (FerrimanGallwey score), acne, and obesity. No striae or moon face (rules out Cushing's). Rotterdam Criteria: 2 of 3 (Irregular cycles, Clinical/ Biochemical Hyperandrogenism, Polycystic ovaries on US). Elevated LH:FSH ratio.

Postpartum Haemorrhage (PPH)

HISTORY

Primary: >500ml blood loss within 24 hours of delivery. Secondary: Heavy bleeding 24 hours to 12 weeks post-delivery. The 4 Ts: Tone (uterine atony), Trauma (tears), Tissue (retained placenta), Thrombin (clotting disorder).

EXAMINATION

Assess for hypovolaemic shock (tachycardia, hypotension). Palpate the abdomen: a 'boggy' (soft), high uterus indicates uterine atony (most common cause). Speculum to check for tears.

INVESTIGATIONS

BEDSIDE/GP: Activate massive obstetric haemorrhage protocol. Immediate fundal massage. DEFINITIVE: Bloods: Group and Save, Crossmatch 4 units, FBC, Clotting profile.

TREATMENT

Resuscitation (Oxygen, 2 large-bore IV cannulae, IV fluids/blood). Medical: IV Oxytocin (Syntocinon), Ergometrine, Carboprost, TXA, Misoprostol. Surgical: Balloon tamponade (Bakri), B-Lynch suture, or Hysterectomy.

— : PPH can be catastrophically rapid. Delays in recognizing shock and calling for senior help lead to maternal death. Treat aggressively.

": Heavy, dangerous bleeding immediately after giving birth. Most often, the womb fails to clamp down hard enough after the baby is born. We must rapidly massage the womb and use strong IV drugs to make it contract and stop the bleeding."

Pre-eclampsia

HISTORY

Pregnant woman (>20 weeks gestation). Often asymptomatic initially. Severe cases: severe frontal headache, visual disturbances (flashing lights/blurring), severe epigastric pain, vomiting, sudden swelling of face/hands.

EXAMINATION

Hypertension (BP > 140/90). Hyperreflexia and clonus (in severe cases). Right upper quadrant or epigastric tenderness. Papilloedema.

INVESTIGATIONS

BEDSIDE/ Urine dipstick MUST be done at every antenatal visit (checking for Proteinuria). Blood BEDSIDE/GP: pressure measurement. DEFINITIVE: Urine PCR (Protein:Creatinine ratio). Bloods (FBC, U&Es, LFTs, Clotting). Placental Growth Factor (PlGF) testing.

TREATMENT

Mild/Moderate: Labetalol to control BP, close monitoring. Severe/Eclampsia risk: IV Magnesium Sulphate to prevent seizures. Definitive cure: Delivery of the baby and placenta.

— : Eclampsia (seizures). HELLP syndrome (Haemolysis, Elevated Liver enzymes, Low Platelets). Both are absolute obstetric emergencies requiring immediate delivery.

": A dangerous condition in pregnancy caused by a problem with the placenta. It causes high blood pressure and protein leaking into the urine. If left untreated, it can cause seizures and harm both mother and baby. The only true cure is delivering the baby."

Prematurity / Pre-term Labour

HISTORY

Regular, painful uterine contractions before 37 weeks of pregnancy. May have a 'show' (mucus plug passing) or rupture of membranes (waters breaking early). Backache, pelvic pressure.

EXAMINATION

if placenta praevia has not been ruled out or if membranes ruptured (infection risk).

INVESTIGATIONS

BEDSIDE/ CTG to monitor fetal heart rate and contraction frequency. Swab for fetal fibronectin (if BEDSIDE/GP: negative, pre-term delivery is highly unlikely in the next week). DEFINITIVE: Transvaginal ultrasound to measure cervical length (short cervix increases risk). High vaginal swab for infection (a common trigger).

TREATMENT

Tocolytics (e.g., Nifedipine) to delay labour by 48 hours. This buys time to give IM Corticosteroids (to mature baby's lungs) and IV Magnesium Sulphate (to protect baby's brain/ prevent cerebral palsy).

— : Signs of chorioamnionitis (maternal fever, foul-smelling discharge, fetal tachycardia) mean labour MUST NOT be delayed, and the baby must be delivered due to severe infection risk.

": Going into labour too early, before the baby is fully ready. We use medicines to temporarily stop the contractions so we can give the mother steroid injections, which rapidly help the baby's lungs mature before they are born."

Termination of Pregnancy

HISTORY

Patient requests an abortion. Must establish exact gestation (date of last menstrual period). Assess reasons, support network, and ensure there is no coercion.

EXAMINATION

may be done in clinic to assess uterine size.

INVESTIGATIONS

BEDSIDE/GP: Urinary pregnancy test. Screen for STIs (Chlamydia swab). DEFINITIVE: Ultrasound scan to confirm gestation and rule out ectopic pregnancy. Bloods: Group and Save (crucial for Rhesus status), FBC.

TREATMENT

Medical (<9-10 weeks): Mifepristone (blocks progesterone) followed 24-48h later by Misoprostol (causes contractions/expulsion). Surgical: Manual Vacuum Aspiration (MVA) under local anaesthetic or surgical dilatation and evacuation (D&E) under general.

— : Heavy prolonged bleeding (soaking >2 pads an hour), severe pain, or fever post-procedure suggests retained products of conception or infection, requiring urgent review. Ectopic pregnancy must be ruled out beforehand.

": The medical process of ending a pregnancy. Early on, it is usually done with two sets of tablets that cause the womb to empty like a heavy period. Later on, a minor surgical procedure is used. Support and contraception advice are always provided."

Vasa Praevia

HISTORY

Painless vaginal bleeding immediately after the waters break in labour, followed by catastrophic fetal distress.

EXAMINATION

Severe fetal bradycardia on CTG.

INVESTIGATIONS

BEDSIDE/GP: Continuous CTG. DEFINITIVE: Antenatal ultrasound with Doppler identifies it early.

TREATMENT

Emergency category 1 Caesarean section.

— : The blood lost belongs to the baby, leading to rapid fetal death.

": The baby's blood vessels are exposed across the cervix. If the waters break, the vessels tear. Requires emergency C-section to save the baby."

DDx: Placenta Praevia, Placental Abruption, Ruptured Uterus. Painless vaginal bleeding immediately after spontaneous/artificial rupture of membranes in labour. Placental abruption is very painful. Pulsating fetal vessels may be palpable through the cervix. Immediate and catastrophic fetal distress (bradycardia) on CTG. Antenatal Doppler ultrasound is used for screening. Visual Field Defects, Vasovagal Syncope, &

Dermatology

17 conditions

Acne Vulgaris

HISTORY

Onset of spots (face, chest, back), age of onset, current skincare, psychological impact.

EXAMINATION

Non-inflammatory (comedones) & inflammatory lesions (papules, pustules, cysts). Scarring.

INVESTIGATIONS

BEDSIDE/GP: Clinical diagnosis. DEFINITIVE: None routinely. Hormone profile if hyperandrogenism (PCOS) suspected.

TREATMENT

s to clear pores."

— : Acne fulminans (systemic upset, fever), Endocrinopathy (virilisation).

": Blocked oil glands causing inflammation. Takes 8-12 weeks for"

DDx: Rosacea, Folliculitis, Polycystic Ovary Syndrome (underlying cause). Absence of facial flushing triggers like spicy food/ alcohol (rules out Rosacea). Irregular periods/excess hair suggests PCOS. Presence of comedones (blackheads/whiteheads) is the hallmark of acne and ABSENT in rosacea. Usually none required. Normal pelvic ultrasound and hormone profile rules out PCOS.

Atopic Dermatitis (Eczema)

HISTORY

of atopy (asthma, hayfever, eczema).

EXAMINATION

Erythematous, scaling, excoriated (scratched) plaques. Distribution: flexor surfaces (creases of elbows, backs of knees) in adults/older children; face and extensors in infants.

INVESTIGATIONS

BEDSIDE/GP: Identify triggers (soaps, stress, weather, pets). DEFINITIVE: Clinical diagnosis. Swab if bacterial or viral infection suspected.

TREATMENT

Copious emollients (moisturisers) multiple times a day. Topical corticosteroids for flares (mild on face, stronger on body). Avoid soap (use soap substitutes).

— : Eczema herpeticum: rapid worsening with painful, punched-out blisters (HSV infection) - requires urgent oral/IV Aciclovir. Secondary bacterial infection.

": A common condition where the skin barrier is dry and easily irritated, causing intensely itchy red patches. Copious moisturiser and steroid creams during flare-ups help control it."

Basal Cell Carcinoma (BCC)

HISTORY

Slow-growing, painless skin lesion on sun-exposed areas (face, neck, ears). Non-healing 'scab' that occasionally bleeds.

EXAMINATION

Nodular BCC: 'Pearly' nodule with a rolled edge, central ulceration, and visible tiny blood vessels (telangiectasia). Superficial BCC: red, scaly patch.

INVESTIGATIONS

BEDSIDE/GP: Dermoscopy reveals arborising vessels. DEFINITIVE: Excision biopsy or punch biopsy for histology.

TREATMENT

Surgical excision with standard margins. Alternatives for low-risk/superficial lesions: Topical Imiquimod, Cryotherapy, or Photodynamic Therapy (PDT). Mohs micrographic surgery for high-risk facial sites.

— : Lesions near the eyes/nose can cause significant local tissue destruction if left untreated, though BCCs practically never spread to other organs (no metastasis).

": The most common and least dangerous type of skin cancer. It grows very slowly and almost never spreads, but it needs removing to stop it damaging the surrounding skin."

Blepharitis

HISTORY

Bilateral gritty, itchy, red, burning eyes. Eyelids stuck together in the morning. Chronic relapsing condition. Often associated with Rosacea or Seborrhoeic dermatitis.

EXAMINATION

. Visual acuity (should be normal). DEFINITIVE: Clinical diagnosis. Swabs only if severe purulent discharge.

INVESTIGATIONS

BEDSIDE/GP: External eye

TREATMENT

Eyelid hygiene is key: warm compresses, lid massage, and cleaning with diluted baby shampoo/bicarbonate. Artificial tears for dry eyes. Severe: oral tetracyclines (Lymecycline).

— : Unilateral symptoms, vision loss, severe pain, or ulceration of the cornea.

": Chronic inflammation of the edges of the eyelids, often due to blocked oil glands. Regular cleaning with warm flannels and lid massage keeps it under control."

Cellulitis

HISTORY

of minor trauma/bite.

EXAMINATION

Unilateral erythema, oedema, warmth. Poorly defined borders. Lymphadenopathy.

INVESTIGATIONS

BEDSIDE/GP: NEWS2 for sepsis. Outline erythema with marker pen. DEFINITIVE: Clinical diagnosis. Wound swab if exudate. Bloods if unwell.

TREATMENT

Oral Flucloxacillin. Elevate leg. IV antibiotics if severe/systemic.

— : Necrotizing fasciitis (pain out of proportion, purple skin), Sepsis.

": Deep skin bacterial infection. Requires antibiotics and leg elevation to reduce swelling."

DDx: Deep Vein Thrombosis (DVT), Venous Eczema, Necrotising Fasciitis. Acute onset and unilateral. Bilateral redness is almost never cellulitis (rules in venous eczema). Skin is hot, angry red, and sharply demarcated. Pain is proportional (if pain is extreme and out of proportion, suspect Necrotising Fasciitis). Venous Doppler Ultrasound of the leg is negative (rules out DVT). High CRP and WBC point to infection.

Contact Dermatitis

HISTORY

of occupational and personal exposures. DEFINITIVE: Clinical diagnosis. Patch testing (performed by dermatology) can identify specific allergens if allergic contact dermatitis is suspected.

EXAMINATION

Erythema, vesicles, or scaling restricted closely to the area of contact with the offending agent.

INVESTIGATIONS

BEDSIDE/GP: Detailed

TREATMENT

Identify and avoid the trigger. Emollients. Topical corticosteroids (e.g., Hydrocortisone or Betamethasone) for active flares.

— : Occupational dermatitis causing significant time off work may require industrial injuries assessment.

": An itchy red rash that breaks out because your skin has reacted to something it touched, like cheap jewellery or strong soaps. Avoiding the trigger and using a steroid cream helps it heal."

Cutaneous Fungal Infection (Tinea / Ringworm)

HISTORY

of contact with animals, damp environments, or gym use.

EXAMINATION

(some fungal strains fluoresce, though not all). DEFINITIVE: Skin scrapings, hair plucks, or nail clippings sent for fungal microscopy and culture (mycology).

INVESTIGATIONS

BEDSIDE/GP: Wood's lamp

TREATMENT

Localised (skin): Topical antifungal creams (Terbinafine, Miconazole, Clotrimazole) for 1-2 weeks after rash clears. Scalp/Nails/Widespread: Oral antifungals (Oral Terbinafine or Itraconazole).

— : DO NOT use topical corticosteroids (e.g., Hydrocortisone) alone on a fungal infection; it masks the inflammation but feeds the fungus, causing 'Tinea Incognito' (a deep, atypical spreading infection).

": A common, harmless but itchy infection of the skin, nails, or scalp caused by a fungus (not an actual worm). It often forms a red ring on the skin. Antifungal creams usually clear it up, but nail or scalp infections need tablets."

Cutaneous Warts (Verrucae)

HISTORY

Small, rough lumps on the skin. Often painless, but verrucae on the soles of the feet can be painful when walking/standing. Caused by Human Papillomavirus (HPV). Very common in children and young adults.

EXAMINATION

Firm, hyperkeratotic (rough/scaly) papules. Scraping the surface reveals tiny black dots (thrombosed capillaries), which differentiates them from corns/calluses.

INVESTIGATIONS

BEDSIDE/ Clinical inspection. Paring down the wart with a scalpel to look for thrombosed BEDSIDE/GP: capillaries. DEFINITIVE: Clinical diagnosis. Biopsy only if the lesion is atypical, bleeding, or suspect for malignancy (e.g., squamous cell carcinoma).

TREATMENT

Watch and wait (most resolve spontaneously within 1-2 years). Daily application of topical Salicylic acid (requires patience). Cryotherapy (freezing with liquid nitrogen) in clinic.

— : Rapidly growing, bleeding, or unusually pigmented warts must be referred to rule out skin cancer, particularly in immunocompromised patients.

": Hard, rough lumps on the skin caused by a common virus. They are harmless and usually go away on their own eventually as your immune system fights them off, but we can treat them with freezing or acid paints if they are bothersome."

Folliculitis

HISTORY

Multiple small, itchy or mildly painful spots around hair follicles. Common on the beard area, legs (after shaving), or trunk. 'Hot tub' folliculitis occurs after using unchlorinated spas.

EXAMINATION

Multiple small pustules centered around hair follicles, with a narrow rim of erythema. No large areas of spreading redness (unlike cellulitis).

INVESTIGATIONS

BEDSIDE/GP: Clinical inspection. DEFINITIVE: Usually clinical. Swab for bacterial culture if severe or non-resolving (often Staph aureus; Pseudomonas in hot tubs).

TREATMENT

Mild: Antibacterial washes (Chlorhexidine) or topical antibiotics (Fusidic acid). Severe/ widespread: Oral Flucloxacillin.

— : Progression into deeper, larger painful boils (furuncles) or clusters of boils (carbuncles), especially in diabetic patients.

": A superficial infection of the hair follicles, causing tiny pimples. It often happens after shaving or friction. Keeping the area clean and using antibiotic creams usually clears it up."

DDx: G

Head Lice

HISTORY

Itchy scalp, especially around the nape of the neck and behind the ears. Common in school- aged children.

EXAMINATION

Visible live lice crawling on the scalp. Nits (empty white egg casings) firmly attached to hair shafts.

INVESTIGATIONS

BEDSIDE/GP: Visual inspection of the scalp using a fine-toothed detection comb on wet hair. DEFINITIVE: Clinical diagnosis. No blood tests or swabs needed.

TREATMENT

Wet combing method (Conditioner + fine-toothed comb every 3-4 days for 2 weeks). Alternatively, topical physical insecticides (e.g., Dimeticone 4% lotion).

— : If scalp is heavily excoriated (scratched), monitor for secondary bacterial skin infections (Impetigo).

": Tiny insects that live on the human scalp and lay eggs (nits) in the hair. They cause intense itching but are harmless. They can be cleared by meticulous wet combing or special lotions."

Impetigo

HISTORY

Rapidly spreading rash, usually on the face (around the mouth and nose) or limbs. Itchy. More common in children.

EXAMINATION

Non-bullous (common): Vesicles that rupture, leaving characteristic 'honey-coloured' or golden crusts. Bullous: large fluid-filled blisters (less common).

INVESTIGATIONS

BEDSIDE/GP: Clinical inspection. DEFINITIVE: Usually a clinical diagnosis. Skin swab for microscopy and culture only if recurrent or not responding to

TREATMENT

Localised: Hydrogen peroxide 1% cream or topical antibiotic (Fusidic acid/Mupirocin). Widespread/Systemic: Oral Flucloxacillin (or Clarithromycin).

— : Highly contagious. Patient must stay off school/work until crusts dry out or 48 hours after starting antibiotics. Watch for post-streptococcal glomerulonephritis.

": A very contagious bacterial skin infection common in children. It causes golden, crusty sores around the mouth. Treated with antibiotic creams or tablets."

Pressure Sores (Decubitus Ulcers)

HISTORY

Immobile patient (bedbound, wheelchair user, paraplegic). Painful area over a bony prominence (sacrum, heels, elbows, occiput).

EXAMINATION

Grade 1: Non-blanching erythema (intact skin). Grade 2: Partial thickness skin loss (blister/ abrasion). Grade 3: Full thickness loss (subcutaneous fat visible). Grade 4: Muscle/bone visible.

INVESTIGATIONS

BEDSIDE/GP: Waterlow Score to assess risk. Full skin check of all bony prominences. DEFINITIVE: Wound swab if infected. Bloods for nutritional status (Albumin). X-ray/MRI if underlying osteomyelitis is suspected (bone visible/probe to bone).

TREATMENT

: specialized dressings (hydrocolloid), optimization of nutrition, surgical debridement if necrotic.

— : Sepsis arising from an infected sore. Osteomyelitis if the sore tracks deep to the bone.

": Skin damage caused by constant pressure on one area, stopping blood flow. Common in bedbound patients. They can become deep, infected holes. Moving the patient regularly and using special mattresses prevents them."

Psoriasis

HISTORY

Chronic, itchy, or sore red, scaly rash. Often cyclical (flares and remissions). Associated joint pain (psoriatic arthritis).

Triggers: stress, strep throat, certain drugs (beta-blockers).

EXAMINATION

Well-demarcated, erythematous plaques with thick, silvery scales. Extensor surfaces (knees, elbows), scalp, natal cleft. Auspitz sign (pinpoint bleeding when scale is picked). Nail pitting, onycholysis.

INVESTIGATIONS

BEDSIDE/GP: Assess joints for signs of Psoriatic Arthritis. DEFINITIVE: Clinical diagnosis. Rheumatology referral if joint symptoms are present.

TREATMENT

Topical: Emollients, potent Corticosteroids + Vitamin D analogues (Calcipotriol). Systemic/ Severe: Phototherapy (UVB), Methotrexate, Biologics (Adalimumab).

— : Psoriatic erythroderma (widespread redness covering >90% of body) or Generalised Pustular Psoriasis (systemically unwell/fever) require urgent dermatology admission.

": An immune condition causing skin cells to replace themselves too quickly, leading to thick, red, scaly patches on elbows and knees. Creams and light therapy help slow this down."

DDx: Eczema, Discoid Lupus, Tinea Corporis, Pityriasis Rosea. Well-demarcated itchy plaques. Associated with joint pain (psoriatic arthritis). Symmetrical silver-scaled plaques on extensor surfaces (elbows/knees). Auspitz sign (pinpoint bleeding when scale is removed) and nail pitting. Clinical diagnosis. Skin biopsy if uncertain rules out lichen planus or lupus.

Scabies

HISTORY

Intense, widespread itching that is significantly WORSE AT NIGHT. Other household members or close contacts are often also itching. Rash affects web spaces of fingers, wrists, and genitals.

EXAMINATION

Small, silvery-grey linear burrows visible in the web spaces of fingers/toes and flexor surfaces of wrists. Excoriations (scratch marks) and generalized red papules.

INVESTIGATIONS

BEDSIDE/ Examine the hands, wrists, and genitalia very closely. Use a dermatoscope to look for BEDSIDE/GP: the mite at the end of a burrow. DEFINITIVE: Clinical diagnosis.

TREATMENT

Topical Permethrin 5% cream (applied to the ENTIRE body from the neck down, left for 8-12 hours, then washed off. Repeat exactly 1 week later). ALL household contacts must be treated simultaneously, even if asymptomatic. Wash all bedding/clothes at 60 degrees.

— : Crusted (Norwegian) Scabies: A hyper-infestation in immunocompromised/ elderly patients causing thick, crusty plaques. Highly contagious, requires Ivermectin and isolation.

": A skin infestation caused by tiny mites that burrow under the skin to lay eggs. It causes extreme itching, especially at night. You and everyone you live with must apply a special cream all over your bodies to kill the mites."

Skin Cancer (Melanoma, SCC, BCC)

HISTORY

BCC: Slow-growing 'pearly' nodule. SCC: Rapidly growing, scaly/crusted ulcerated lump. Melanoma: New or changing mole (ABCDE: Asymmetry, Border irregularity, Colour variation, Diameter >6mm, Evolving).

EXAMINATION

. Examine regional lymph nodes. DEFINITIVE: Urgent 2-week-wait dermatology referral. Excision biopsy is diagnostic (DO NOT do a punch biopsy for suspected melanoma).

INVESTIGATIONS

BEDSIDE/GP: Dermoscopy

TREATMENT

Surgical excision with clear margins. For advanced melanoma: Immunotherapy (e.g., Pembrolizumab) or targeted BRAF therapy.

— : Any changing mole, bleeding mole, or mole that looks completely different from the others ('ugly duckling sign') must be referred urgently.

": Cancer of the skin cells, usually caused by sun damage. BCCs and SCCs are usually easily cured with minor surgery. Melanomas are more dangerous as they can spread and require urgent removal."

Urticaria, Varicella, & Viral Exanthema

HISTORY

Urticaria: migrating, intensely itchy raised red wheals (hives). Varicella (Chickenpox): fever followed by intensely itchy, blistering spots. Exanthema (e.g. Parvovirus): mild fever followed by a widespread rash (e.g. slapped cheeks).

EXAMINATION

Urticaria: raised wheals with central pallor that vanish within 24h. Varicella: macules, papules, and vesicles in varying stages. Exanthema: maculopapular rash.

INVESTIGATIONS

BEDSIDE/GP: Check ABCDE for urticaria (rule out anaphylaxis). DEFINITIVE: Clinical diagnosis.

TREATMENT

Urticaria: High-dose antihistamines. Varicella: Calamine lotion, avoid Ibuprofen, Aciclovir if adult/shingles. Exanthema: Supportive.

— : Varicella in pregnancy/immunocompromised is dangerous. Anaphylaxis with urticaria. Slapped cheek syndrome in a patient with Sickle Cell Disease (causes aplastic crisis).

": Common itchy or spotty rashes. Hives are an allergic reaction treated with antihistamines. Chickenpox and other viral rashes just need time and soothing lotions, but adults or pregnant women might need specific antiviral tablets."

DDx: V

Ophthalmology

15 conditions

Acute Angle-Closure Glaucoma

HISTORY

Sudden onset severe deep eye pain. Decreased vision, seeing 'halos' around lights. Nausea.

EXAMINATION

.

INVESTIGATIONS

BEDSIDE/GP: Visual acuity testing (reduced). Urgent ophthalmic assessment. DEFINITIVE: Tonometry (IOP >30 mmHg). Slit-lamp

TREATMENT

needed to save vision."

— : Delay in

": Dangerous fluid pressure buildup in the eye. Emergency"

Cataracts

HISTORY

Gradual, painless blurring of vision. Glare from bright lights (especially headlights when driving at night). 'Washed out' colours. Increasing age is the main risk factor.

EXAMINATION

Reduced visual acuity. Loss of the red reflex on fundoscopy (appears as a dark shadow or opacity against the red background). A white pupil (leukocoria) in advanced cases.

INVESTIGATIONS

BEDSIDE/GP: Visual acuity test (Snellen chart). Ophthalmoscopy (check red reflex). DEFINITIVE: Specialist assessment by an optometrist or ophthalmologist using a slit lamp.

TREATMENT

Conservative: update glasses prescription. Surgical: Phacoemulsification (removal of the cloudy lens and replacement with an artificial intraocular lens) when it affects daily life.

— : Leukocoria (white pupil) in a child must be urgently investigated to rule out Retinoblastoma (eye cancer).

": The natural lens inside your eye has become cloudy with age, making your vision blurry and sensitive to glare. A very common and quick operation can replace it with a clear artificial lens."

Central Retinal Artery Occlusion

HISTORY

of cardiovascular risk factors or atrial fibrillation.

EXAMINATION

Profoundly reduced visual acuity. Relative Afferent Pupillary Defect (RAPD). Fundoscopy: pale, opaque retina with a classic 'cherry-red spot' at the macula.

INVESTIGATIONS

BEDSIDE/GP: Visual acuity. Test pupillary reflexes. Assess for cardiovascular risk. DEFINITIVE: Urgent ophthalmology referral. Bloods (ESR/CRP to rule out Temporal Arteritis). Carotid dopplers and ECG/Echo to find the source of the embolus.

TREATMENT

Ocular emergency, though outcomes are poor. Ocular massage to dislodge the clot. Medical lowering of intraocular pressure. Secondary prevention (Statins, antiplatelets).

— : Rule out Giant Cell Arteritis (jaw claudication, scalp tenderness, headache) which requires immediate high-dose steroids to save the other eye.

": A 'stroke of the eye' where the main blood vessel supplying the retina is blocked by a clot. It causes sudden, painless blindness in that eye. Immediate specialist assessment is needed, but sight is often hard to restore."

Chronic (Open-Angle) Glaucoma

HISTORY

, myopia, raised IOP, diabetes, hypertension, long-term steroid use.

EXAMINATION

Normal-appearing eye (unlike acute angle-closure). Fundoscopy: increased cup-to-disc ratio (>0.6), disc cupping, notching of the neuroretinal rim. Visual field testing shows characteristic arcuate scotomas.

INVESTIGATIONS

BEDSIDE/GP: Visual acuity, confrontation visual fields. DEFINITIVE: Tonometry (IOP typically elevated >21 mmHg but can be normal-tension glaucoma). Optical coherence tomography (OCT) of optic nerve head. Perimetry (Humphrey visual field testing). Gonioscopy to confirm open angle.

TREATMENT

prevents progression. Bilateral disease. Normal-tension glaucoma (IOP normal but progressive field loss) — requires ophthalmology input.

— : Irreversible visual field loss — early

": This is a slow, painless condition where pressure in the eye gradually damages the sight nerve. Eye drops taken every day control the pressure and prevent further vision loss."

Conjunctivitis

HISTORY

Bacterial: Purulent (sticky/yellow) discharge, eyes stuck shut in morning. Viral: Watery discharge, recent cold. Allergic:

Intensely itchy, watery, bilateral.

EXAMINATION

Diffuse redness (conjunctival injection). Normal visual acuity, normal pupil reactivity, no photophobia. Cornea is clear.

INVESTIGATIONS

BEDSIDE/ Visual acuity test (must be normal). Check for pre-auricular lymph nodes (common BEDSIDE/GP: in viral). DEFINITIVE: Clinical diagnosis. Eye swab only if severe, non-resolving, or in neonates (Chlamydia/ Gonorrhoea risk).

TREATMENT

Bacterial: Often self-limiting, Chloramphenicol drops if severe. Viral: Supportive (cold compresses), contagious. Allergic: Topical antihistamines.

— : Reduced vision, severe pain, photophobia, fixed/irregular pupil, cloudy cornea (All point to dangerous red eye causes like Uveitis, Glaucoma, or Keratitis).

": An inflammation of the clear membrane over the white part of your eye. It makes the eye red and crusty or watery. Most cases get better on their own with cleaning, but some need antibiotic drops."

Hordeolum)

HISTORY

Chalazion: Painless, firm, slow-growing lump in the eyelid. Hordeolum (Stye): Acute, painful, red lump at the edge of the eyelid (near eyelash follicle).

EXAMINATION

Chalazion: Non-tender nodule within the tarsal plate. Stye: Tender, erythematous, pus- filled swelling at the lid margin.

INVESTIGATIONS

BEDSIDE/GP: External eye exam. Visual acuity (should be normal). DEFINITIVE: Clinical diagnosis. No swabs needed unless systemically unwell.

TREATMENT

First line: Warm compresses 3-4 times a day and lid massage to unblock the gland. Antibiotic ointment (Chloramphenicol) ONLY if infected. Incision and curettage if a chalazion persists >1 month.

— : Recurrent chalazia in exactly the same spot in an older patient -> must rule out Sebaceous Gland Carcinoma (requires biopsy).

": Harmless lumps on the eyelids caused by blocked oil glands or minor infections. A stye is painful and like a pimple, while a chalazion is painless and firm. Warm wet flannels and gentle massage usually clear them up."

Infective Keratitis (Corneal Ulcer)

HISTORY

. Fluorescein staining shows corneal BEDSIDE/GP: epithelial defect. DEFINITIVE: Urgent same-day ophthalmology referral. Corneal scrape for urgent microscopy and culture (watch out for Pseudomonas or Acanthamoeba).

EXAMINATION

Ciliary flush (redness around the iris). A visible white spot/opacity on the cornea (ulcer). Hypopyon (pus gathering in the bottom of the anterior chamber).

INVESTIGATIONS

BEDSIDE/ Visual acuity. Check contact lens

TREATMENT

Intensive topical antibiotic drops (e.g., Ofloxacin drops every hour day and night initially). NEVER prescribe topical steroids in primary care for a red eye.

— : If untreated, the infection can rapidly eat through the cornea (perforation) causing permanent blindness or loss of the eye.

": A severe bacterial infection of the clear window at the front of your eye, often caused by dirty contact lenses. It causes intense pain and a white ulcer, requiring heavy hourly antibiotic eye drops to save your vision."

Iritis / Anterior Uveitis

HISTORY

Unilateral dull, aching eye pain, photophobia (dislike of light), red eye, slightly blurred vision. Often associated with HLA-B27 autoimmune conditions (e.g., Ankylosing Spondylitis, Inflammatory Bowel Disease).

EXAMINATION

Ciliary flush. Constricted (miotic), poorly reactive, or irregularly shaped pupil (due to adhesions/synechiae). Cells and flare in the anterior chamber on slit-lamp exam.

INVESTIGATIONS

BEDSIDE/GP: Visual acuity. Check pupil shape and reaction. DEFINITIVE: Same-day ophthalmology assessment (slit lamp is required). Bloods (HLA-B27, autoimmune screen) if recurrent.

TREATMENT

Topical corticosteroids (e.g., Dexamethasone eye drops) to reduce inflammation. Cyclopentolate drops (dilates the pupil to prevent painful spasms and adhesions).

— : Can cause secondary glaucoma. Irregular pupil shape means the iris has stuck to the lens (posterior synechiae).

": Inflammation of the coloured part of your eye (the iris). It causes an aching red eye that hates bright light. It's often linked to body-wide immune conditions like arthritis. Treated with steroid and dilating eye drops."

Macular Degeneration (Age-Related / AMD)

HISTORY

Gradual (dry) or sudden (wet) loss of central vision, distortion of straight lines (metamorphopsia), difficulty reading or recognising faces. Generally older patients.

EXAMINATION

Reduced visual acuity. Fundoscopy: yellow deposits (drusen) in the macula. Neovascularisation or subretinal haemorrhage in wet AMD.

INVESTIGATIONS

BEDSIDE/GP: Amsler grid test (lines appear wavy). Visual acuity check. DEFINITIVE: Optical Coherence Tomography (OCT) scan and Fluorescein Angiography to confirm wet AMD.

TREATMENT

Dry: No medical cure, lifestyle advice (smoking cessation), vitamin supplements (AREDS2). Wet: Urgent intra-vitreal Anti-VEGF injections.

— : Sudden onset of profound visual loss or sudden severe metamorphopsia requires urgent referral to eye casualty (Wet AMD).

": A condition that affects the middle part of your vision. 'Dry' happens slowly as you age, while 'wet' happens quickly due to leaky blood vessels and needs eye injections to stop it worsening."

Optic Neuritis

HISTORY

Young female. Unilateral, subacute (over hours/days) loss of vision, blurring, or colour desaturation (reds look 'washed out'). Pain behind the eye that is WORSE on moving the eye.

EXAMINATION

Reduced visual acuity. Reduced colour vision (Ishihara plates). Relative Afferent Pupillary Defect (RAPD). Fundoscopy may be normal (retrobulbar) or show a swollen optic disc.

INVESTIGATIONS

BEDSIDE/GP: Test pupils for RAPD (swinging flashlight test). Test colour vision. DEFINITIVE: Urgent ophthalmology and neurology referral. MRI Brain (looking for demyelinating plaques).

TREATMENT

High-dose IV Methylprednisolone to speed up visual recovery (does not change long-term visual outcome).

— : Optic neuritis is often the first presenting symptom of Multiple Sclerosis (MS).

": Inflammation of the main nerve carrying vision from the eye to the brain. It causes a painful, blurred eye that hurts to move, and washes out colours. It is a strong warning sign for Multiple Sclerosis, requiring an urgent brain scan."

Periorbital and Orbital Cellulitis

HISTORY

Painful, swollen, red eye. Often preceded by a sinus infection, insect bite, or local skin trauma.

EXAMINATION

Periorbital: Swollen, red eyelids, but eye movement is normal and painless. Orbital (MEDICAL EMERGENCY): Proptosis (bulging eye), pain on eye movement, restricted eye movement (ophthalmoplegia), reduced vision.

INVESTIGATIONS

BEDSIDE/GP: MUST test visual acuity, pupillary reflexes, and full extraocular movements. DEFINITIVE: Urgent CT scan of the orbits/sinuses to differentiate between periorbital and orbital cellulitis and look for abscesses.

TREATMENT

Periorbital: Oral antibiotics (Co-amoxiclav). Orbital: Emergency admission, IV antibiotics, urgent ophthalmology and ENT review (may need surgical drainage of sinuses).

— : Orbital cellulitis (pain on moving the eye, bulging eye, or vision loss) can rapidly spread to the brain (meningitis, cavernous sinus thrombosis) causing blindness or death.

": A bacterial infection of the tissues around the eye. If the infection spreads deep behind the eye (orbital cellulitis), it causes pain when looking around and is a major emergency requiring IV antibiotics to save vision and prevent brain infection."

DDx: Deep Vein Thrombosis (DVT), Venous Eczema, Necrotising Fasciitis. Acute onset and unilateral. Bilateral redness is almost never cellulitis (rules in venous eczema). Skin is hot, angry red, and sharply demarcated. Pain is proportional (if pain is extreme and out of proportion, suspect Necrotising Fasciitis). Venous Doppler Ultrasound of the leg is negative (rules out DVT). High CRP and WBC point to infection.

Retinal Detachment

HISTORY

Painless, sudden onset of 'flashes of light' (photopsia), new 'floaters' (spots/cobwebs in vision), followed by a dark shadow or 'curtain' falling over the vision.

EXAMINATION

. Optical Coherence Tomography (OCT).

INVESTIGATIONS

BEDSIDE/GP: Visual acuity test, Visual fields by confrontation. DEFINITIVE: Urgent specialist ophthalmology assessment with dilated fundoscopy and slit-lamp

TREATMENT

Surgical emergency. Laser photocoagulation or cryotherapy to seal the tear. Vitrectomy or scleral buckle surgery.

— : Macula-on detachment (central vision still intact) requires absolute immediate surgery to save the central vision. If macula is 'off', vision loss may be permanent.

": The light-sensitive lining at the back of your eye has started to peel away, like wallpaper coming off a wall. It causes a curtain-like shadow over your sight and needs urgent surgery to fix."

Retinopathy (Diabetic)

HISTORY

Early stages: Completely asymptomatic (picked up on annual screening). Late stages: blurred vision, sudden vision loss (vitreous haemorrhage), 'floaters'. Poorly controlled diabetes.

EXAMINATION

Background: microaneurysms, dot-and-blot haemorrhages, hard exudates. Pre-proliferative: Cotton wool spots. Proliferative: Neovascularisation (new, fragile blood vessels growing on the retina or optic disc). Maculopathy: exudates near the macula.

INVESTIGATIONS

BEDSIDE/GP: Visual acuity. Check HbA1c and Blood Pressure. DEFINITIVE: Digital retinal photography (routine screening). Optical Coherence Tomography (OCT) to assess macular oedema. Fluorescein angiography.

TREATMENT

stops the vessels bleeding and saves sight."

— : Neovascularisation (Proliferative retinopathy) is a major red flag as these fragile vessels can suddenly bleed into the eye or detach the retina, causing permanent blindness.

": High blood sugar over many years damages the tiny blood vessels at the back of the eye. It doesn't cause symptoms until late, which is why annual eye screening is vital. If severe, laser"

Scleritis

HISTORY

Severe, boring, deep eye pain that radiates to the forehead/jaw and is worse at night (often waking the patient). Pain worsens with eye movement. Blurred vision. Associated with Rheumatoid Arthritis / Vasculitis.

EXAMINATION

The eye is deeply red with a 'bluish/purplish' hue. The redness does NOT blanch (turn white) when phenylephrine drops are applied (unlike the milder condition, episcleritis). Globe is very tender to palpation.

INVESTIGATIONS

BEDSIDE/GP: Visual acuity. Phenylephrine drop test (differentiates episcleritis from scleritis). DEFINITIVE: Urgent same-day ophthalmology review. Autoimmune blood screen (Rheumatoid Factor, ANA, ANCA).

TREATMENT

with strong antiinflammatory tablets to prevent permanent damage to the eye."

— : Necrotizing scleritis can melt the sclera, causing the eye to perforate and leading to permanent blindness.

": A severe, deep inflammation of the tough white outer layer of your eye. It is extremely painful and often linked to arthritis conditions. It requires urgent specialist"

ENT

8 conditions

Acoustic Neuroma

HISTORY

Gradual unilateral hearing loss, tinnitus, vertigo/unsteadiness. Rare: facial numbness.

EXAMINATION

, Otoscopy (usually normal). DEFINITIVE: Pure tone audiometry. MRI Head is gold standard.

INVESTIGATIONS

BEDSIDE/GP: Cranial nerve

TREATMENT

Conservative (watch & wait), Stereotactic radiosurgery, or Surgical removal.

— : Signs of raised intracranial pressure (severe headache, morning vomiting).

": A slow-growing, non-cancerous nerve tumour affecting hearing and balance."

Benign Paroxysmal Positional Vertigo (BPPV)

HISTORY

and positive Dix-Hallpike.

EXAMINATION

Normal hearing. Positive Dix-Hallpike manoeuvre (triggers vertigo and horizontal/ torsional nystagmus).

INVESTIGATIONS

BEDSIDE/GP: Dix-Hallpike manoeuvre (diagnostic). DEFINITIVE: Usually none required if classic

TREATMENT

Epley manoeuvre (repositioning particle movement) performed in clinic. Patient can do Brandt-Daroff exercises at home.

— : Vertigo associated with headache, focal neurological signs, or hearing loss/ tinnitus (points to stroke, acoustic neuroma, or Meniere's disease).

": Tiny calcium crystals in your inner ear have broken loose and are confusing your balance sensors. Moving your head in a specific sequence (Epley manoeuvre) tips the crystals back where they belong."

Epistaxis (Nosebleed)

HISTORY

Bleeding from one or both nostrils. Hx of nose-picking, trauma, nasal sprays, hypertension, or anticoagulants (Warfarin/DOACs).

EXAMINATION

Active bleeding or clots in the nasal cavity. Anterior bleed (Kiesselbach's plexus/Little's area). Posterior bleed (profuse, down back of throat).

INVESTIGATIONS

BEDSIDE/ Vital signs (HR, BP to check for hypovolaemia). Inspect nasal cavity with a speculum/ BEDSIDE/GP: headlight. DEFINITIVE: FBC and Coagulation screen ONLY if bleeding is heavy, prolonged, or patient is on blood thinners.

TREATMENT

First aid: Trotter's method (pinch soft fleshy part of nose for 10-15 mins, lean forward). Cautery (Silver Nitrate). Anterior nasal packing. Admit if uncontrolled.

— : Recurrent unilateral epistaxis with nasal obstruction/discharge (rule out nasopharyngeal cancer). Haemodynamic instability.

": A nosebleed, usually from a fragile blood vessel just inside the nose. Pinching the soft part of the nose and leaning forward usually stops it."

DDx: Bleeding Disorders (Haemophilia/vWD), Nasopharyngeal Tumour, Trauma, Severe Hypertension. Unilateral, recurrent bleeding with nasal obstruction/discharge suggests a tumour. Heavy bleeding from multiple sites suggests coagulopathy. Direct inspection of Little's area (Kiesselbach's plexus) identifies the bleeding point. Normal coagulation screen rules out bleeding disorders. Nasendoscopy rules out nasopharyngeal tumours.

Infectious Mononucleosis (Glandular Fever)

HISTORY

Teenager or young adult. Severe sore throat, profound fatigue, high fever. Symptoms last for several weeks.

EXAMINATION

Exudative tonsillitis (white patches on tonsils). Widespread lymphadenopathy (especially posterior cervical nodes). Splenomegaly (enlarged spleen) in 50% of cases.

INVESTIGATIONS

BEDSIDE/GP: Examine the abdomen carefully for splenic enlargement. DEFINITIVE: Monospot test (heterophile antibodies) is usually positive in the 2nd week. Blood film shows atypical lymphocytes. LFTs (often deranged).

TREATMENT

Supportive: Rest, fluids, Paracetamol/NSAIDs. Avoid contact sports for 4-6 weeks to prevent splenic rupture. DO NOT give Amoxicillin (causes a widespread maculopapular rash).

— : Upper airway obstruction from massively enlarged tonsils. Splenic rupture (sudden severe left upper quadrant pain and shock).

": A viral infection (usually Epstein-Barr virus) that causes a very sore throat, swollen glands, and extreme tiredness that can last for months. You must avoid contact sports until your spleen shrinks back to normal size."

DDx: Streptococcal Pharyngitis, CMV, HIV Seroconversion, Toxoplasmosis. Triad: Fever, sore throat, and lymphadenopathy. Profound fatigue that lasts weeks. Exudative tonsillitis and Splenomegaly. Maculopapular rash if given amoxicillin. Monospot test or EBV Serology. FBC shows lymphocytosis with atypical lymphocytes.

Meniere's Disease

HISTORY

Episodic attacks consisting of a classic triad: 1. Intense vertigo (lasting 20 mins to hours), 2. Tinnitus (ringing/roaring), 3. Fluctuating sensorineural hearing loss. Plus a feeling of 'fullness' or pressure in the ear.

EXAMINATION

During attack: Nystagmus. Hearing loss on Rinne/Weber testing. Normal neuro exam otherwise.

INVESTIGATIONS

BEDSIDE/GP: Cranial nerve exam. Otoscopy (tympanic membrane is normal). DEFINITIVE: Pure tone audiometry (shows low-frequency sensorineural hearing loss). ENT specialist assessment.

TREATMENT

Acute: Buccal Prochlorperazine to stop vomiting/vertigo. Prevention: Low salt diet. Betahistine. Severe cases: intra-tympanic gentamicin or surgery.

— : If the hearing loss or tinnitus is constant, unilateral, and progressive, an Acoustic Neuroma must be ruled out with an MRI head.

": A chronic inner ear condition where fluid builds up, causing sudden, unpredictable attacks of severe dizziness, ringing in the ears, and temporary hearing loss. A low-salt diet and specific tablets can help prevent attacks."

Otitis Externa (Swimmer's Ear)

HISTORY

of swimming, using cotton buds (Q-tips), or eczema.

EXAMINATION

Very painful to touch the tragus or pull the pinna. Erythematous, swollen ear canal filled with debris/pus. Tympanic membrane may be normal but hard to see.

INVESTIGATIONS

BEDSIDE/GP: Otoscopy (clean the debris carefully to visualize the canal). DEFINITIVE: Clinical diagnosis. Ear swab for culture only if severe or unresponsive to first-line

TREATMENT

Keep ear completely dry. Topical antibiotic/steroid ear drops (e.g., Sofradex or Ciprofloxacin/ Dexamethasone). If canal is swollen shut, insert a Pope wick to draw drops in.

— : Malignant Otitis Externa: severe, unremitting pain radiating to the jaw/head in an elderly diabetic patient. This is a fatal osteomyelitis of the skull base needing IV antibiotics and urgent ENT referral.

": An infection of the skin lining the ear canal, often caused by water getting trapped or scratching with cotton buds. The ear canal swells and becomes incredibly painful. We treat it with antibiotic/ steroid drops directly into the ear."

Otitis Media (Acute)

HISTORY

Young child. Earache (pulling/rubbing at the ear), fever, irritability, crying, coryzal symptoms. Hearing loss. If the eardrum bursts, the pain suddenly improves and pus discharges from the ear.

EXAMINATION

Otoscopy: Bulging, red, inflamed, opaque tympanic membrane. Loss of the normal light reflex.

INVESTIGATIONS

BEDSIDE/GP: Otoscopy. Check temperature. DEFINITIVE: Clinical diagnosis.

TREATMENT

Most are viral or self-limiting bacterial. Give regular Paracetamol/Ibuprofen for pain. Prescribe antibiotics (Amoxicillin) ONLY if symptomatically severe, lasting >4 days, or bilateral in <2 years old.

— : Mastoiditis: Red, tender, swollen area behind the ear pushing the pinna forwards. Medical emergency requiring admission and IV antibiotics.

": An infection in the middle ear space behind the eardrum, very common in toddlers after a cold. The eardrum bulges and causes intense pain. It usually gets better by itself with painkillers; antibiotics are only used if it doesn't improve."

Rhinosinusitis (Acute and Chronic)

HISTORY

Nasal congestion, thick purulent (green/yellow) nasal discharge, facial pain/pressure (worse on bending forward), loss of smell (anosmia). Acute <12 weeks (usually post-viral). Chronic >12 weeks.

EXAMINATION

Tenderness on palpating the maxillary or frontal sinuses. Nasal polyps may be visible in chronic cases. Inflamed, boggy nasal mucosa.

INVESTIGATIONS

BEDSIDE/GP: Check temperature to rule out systemic infection. DEFINITIVE: Usually a clinical diagnosis. Nasendoscopy (by ENT) for chronic cases. CT Sinuses if surgery is being considered or complications suspected.

TREATMENT

Acute (mostly viral): Analgesia, saline nasal douches, topical decongestants (max 7 days). Antibiotics ONLY if severely systemically unwell or >10 days. Chronic: Intranasal corticosteroids (fluticasone).

— : Unilateral symptoms (especially blood-stained discharge) could indicate a nasal tumour. Orbital cellulitis (red, swollen, painful eye with double vision) is a dangerous complication requiring admission.

": Inflammation of the hollow spaces in your facial bones (sinuses). They fill with mucus, causing pressure, pain, and a blocked nose. Most cases follow a cold and clear up without antibiotics, helped by steroid nasal sprays and painkillers."

Infection & Microbiology

16 conditions

Candidiasis (Oral and Vaginal Thrush)

HISTORY

Oral: white patches in mouth, soreness, altered taste. Vaginal: thick, white 'cottage-cheese' discharge, severe vulval itching, superficial dyspareunia. Triggers: recent antibiotics, steroid inhalers, diabetes.

EXAMINATION

Oral: white plaques that leave a red, bleeding base when scraped off. Vaginal: vulval erythema, thick white discharge.

INVESTIGATIONS

BEDSIDE/ Check capillary blood glucose (uncontrolled diabetes is a major trigger). Check inhaler BEDSIDE/GP: technique (advise rinsing mouth after steroid inhalers). DEFINITIVE: Usually clinical. Swab for culture if recurrent or resistant to standard

TREATMENT

Oral: Nystatin drops or Miconazole oral gel. Vaginal: Topical Clotrimazole (cream/pessary) or Oral Fluconazole.

— : Oral thrush in a young, healthy adult with no obvious triggers should raise suspicion for HIV/immunosuppression.

": A common fungal (yeast) infection. In the mouth it causes sore white patches; down below it causes itching and a thick discharge. Easily treated with anti-fungal creams or tablets."

Chlamydia

HISTORY

and STI screen. DEFINITIVE: Nucleic Acid Amplification Test (NAAT). First-catch urine for men; vulvovaginal swab for women.

EXAMINATION

May be normal. Women: Cervicitis, contact bleeding, cervical excitation (if PID is developing).

INVESTIGATIONS

BEDSIDE/GP: Full sexual health

TREATMENT

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— : Pelvic Inflammatory Disease (PID) causing scarring of fallopian tubes, leading to chronic pelvic pain, ectopic pregnancies, and infertility.

": The most common sexually transmitted bacterial infection. It often has no symptoms but can cause discharge and pain. It is easily cured with a week of antibiotics, but partners must also be treated."

Gonorrhoea

HISTORY

. Offer full STI screen. DEFINITIVE: NAAT (Nucleic Acid Amplification Test) via first-catch urine in men, vulvovaginal swab in women. Endocervical/urethral swabs for culture & sensitivities.

EXAMINATION

Mucopurulent discharge from urethra or cervix. Cervical excitation on bimanual exam (if PID).

INVESTIGATIONS

BEDSIDE/GP: Sexual health

TREATMENT

First-line: Single dose Ceftriaxone 1g IM — per BASHH/NICE guidelines. Partner notification and contact tracing. Abstain from sex until treated.

— : Pelvic Inflammatory Disease (PID) in women, which can lead to ectopic pregnancy and infertility. Disseminated gonococcal infection (fever, arthritis, rash).

": A sexually transmitted bacterial infection. It can cause discharge and pain, but sometimes has no symptoms. It is treated with an antibiotic injection."

DDx: H

Herpes Simplex Virus (Genital)

HISTORY

. STI screen. DEFINITIVE: Viral swab from the base of the ulcer for HSV PCR (differentiates between HSV-1 and HSV-2).

EXAMINATION

Multiple small, painful vesicles (blisters) or shallow ulcers on the genitals. Tender inguinal lymphadenopathy.

INVESTIGATIONS

BEDSIDE/GP: Sexual health

TREATMENT

Oral antiviral (e.g., Aciclovir 400mg TDS for 5 days) for the primary episode. Topical lidocaine for pain. Saline bathing. Avoid sex until healed.

— : Urinary retention (due to extreme pain or autonomic neuropathy). Neonatal transmission risk if active lesions present at term in pregnancy.

": A viral infection causing painful blisters on the genitals. Once caught, the virus stays in the body and can cause mild recurrences. Antiviral tablets help clear the outbreak faster."

DDx: Syphilis (Chancre), Chancroid, Behcet's Disease. Painful, tingling, fluid-filled blisters that burst into ulcers. Syphilis chancre is typically painless. Groups of vesicles on an Viral PCR swab from an ulcer erythematous base. Tender confirms HSV and rules out other inguinal lymphadenopathy. causes of genital ulceration. Negative syphilis serology.

Human Immunodeficiency Virus (HIV)

HISTORY

Primary infection: 'seroconversion illness' (fever, sore throat, rash, swollen glands 2-6 weeks post-exposure).

Asymptomatic phase for years. Late: severe weight loss, rare infections.

HISTORY

. Calculate risk for PEP (Post-Exposure Prophylaxis) BEDSIDE/GP: if exposure was <72 hours ago. DEFINITIVE: HIV testing: 4th generation laboratory test (HIV antigen/antibody). Point-of-care rapid tests. Viral load (HIV RNA) and CD4 cell count.

EXAMINATION

Generalised lymphadenopathy, oral thrush, oral hairy leukoplakia, unusual skin rashes, signs of specific opportunistic infections.

INVESTIGATIONS

BEDSIDE/ Sexual health and drug use

TREATMENT

s are highly effective daily tablets that keep the virus completely suppressed so patients live long, healthy lives and cannot pass it on."

— : Late-stage presentation / AIDS: CD4 < 200, leading to opportunistic infections (Pneumocystis pneumonia, Kaposi's sarcoma, cerebral toxoplasmosis).

": A virus that attacks the immune system. Modern"

Human Papillomavirus Infection (Genital Warts)

HISTORY

Painless lumps around the vulva, penis, or anus. May cause mild itching or bleeding during sex. Caused by HPV types 6 and 11. (Note: HPV 16/18 cause cervical cancer but are asymptomatic).

EXAMINATION

Fleshy, cauliflower-like (exophytic) growths or flat papules on the anogenital skin/ mucosa.

INVESTIGATIONS

BEDSIDE/GP: Full sexual health screen to check for concurrent STIs. DEFINITIVE: Clinical diagnosis. Cervical smear (for high-risk HPV types 16/18) according to national screening guidelines.

TREATMENT

Topical Podophyllotoxin (if soft/non-keratinized) or Imiquimod cream. Cryotherapy or surgical excision/ablation in clinic. HPV vaccination (Gardasil) prevents infection.

— : Atypical, bleeding, or rapidly growing warts must be biopsied to rule out squamous cell carcinoma.

": Small, fleshy lumps in the genital area caused by a virus transmitted during sex. They are mostly harmless but can be a nuisance. They can be treated with freezing or special creams, and the HPV vaccine prevents them."

Lyme Disease

HISTORY

of a tick bite (often in woodland/heathland areas). Early: A slowly expanding 'bullseye' rash (Erythema Migrans), flu-like symptoms, fever, fatigue, joint pain. Late: neurological/cardiac symptoms.

EXAMINATION

Erythema migrans (a target-like red ring with central clearing, usually >5cm). Facial nerve palsy. Joint swelling.

INVESTIGATIONS

BEDSIDE/ Ask about recent outdoor activities/tick exposure in endemic areas (e.g., Scottish Highlands, New Forest). BEDSIDE/GP: DEFINITIVE: If Erythema Migrans is present -> Clinical diagnosis (no tests needed, start

TREATMENT

Oral Doxycycline for 21 days (Amoxicillin if pregnant/child <8). Severe/Neurological Lyme requires IV Ceftriaxone.

— : Lyme carditis (causing heart block/arrhythmias) or neuroborreliosis (meningitis, facial palsy).

": A bacterial infection spread by tick bites. It usually starts with a classic 'bullseye' rash and flu-like symptoms. A 3-week course of specific antibiotics clears it completely in most cases."

Malaria

HISTORY

Fever (often cyclical/spiking), severe rigors, sweats, headache, myalgia, fatigue. Crucial: Recent travel to a malaria-endemic area (usually tropics/sub-tropics).

EXAMINATION

Fever, tachycardia. May have hepatosplenomegaly or jaundice in severe cases. Look for signs of severe anaemia.

INVESTIGATIONS

BEDSIDE/ Urgent vital signs (risk of septic shock-like presentation). Rapid diagnostic tests BEDSIDE/GP: (RDTs) if available. DEFINITIVE: Gold standard: Thick and thin blood films (sent urgently, repeated over 3 days if initially negative). FBC, U&Es, LFTs.

TREATMENT

Uncomplicated: Oral Artemisinin-based Combination Therapy (ACT). Severe/Falciparum: IV Artesunate. Discuss with infectious diseases team.

— : Cerebral malaria (seizures, coma), severe anaemia, acute kidney injury, ARDS (respiratory distress). High mortality if missed.

": A serious tropical disease spread by mosquitoes. A parasite infects your red blood cells, causing high fevers and chills. It requires urgent targeted antibiotics (antimalarials)."

DDx: Typhoid Fever, Dengue Fever, Viral Hepatitis, Sepsis. Recent travel to endemic area (<1 year). Cyclical fevers (every 48-72h). Jaundice and Splenomegaly. Thick and Thin Blood Smears (Gold Standard) rule in Plasmodium species. Rapid Diagnostic Tests (RDTs) can be used for screening.

Measles

HISTORY

(MMR). Examine the buccal mucosa (inside mouth). DEFINITIVE: Notify Public Health immediately. Oral fluid (saliva) swab for Measles PCR to confirm.

EXAMINATION

Koplik spots (tiny white spots on a red base inside the cheeks) appear before the rash. Maculopapular, non-itchy, brick-red rash starting on the head/neck and spreading to the trunk.

INVESTIGATIONS

BEDSIDE/GP: Check vaccination

TREATMENT

Supportive (fluids, Paracetamol). Isolate to prevent spread. Vitamin A in severe cases in children.

— : Complications: Otitis media, Pneumonia (most common cause of death), Encephalitis, and late-onset Subacute Sclerosing Panencephalitis (SSPE).

": A highly contagious viral illness that causes cold-like symptoms, sore eyes, and a widespread red rash. It is entirely preventable with the MMR vaccine. While most recover, it can cause severe lung or brain complications."

Mumps

HISTORY

Child/Young adult (often unvaccinated). Fever, malaise, headache, followed by painful swelling of the parotid glands (cheeks/jaw line).

EXAMINATION

Unilateral or bilateral parotid gland swelling (earlobes pushed upwards and outwards). Redness of the parotid duct opening inside the mouth.

INVESTIGATIONS

BEDSIDE/GP: Check MMR vaccination status. DEFINITIVE: Notify Public Health. Oral fluid swab for Mumps PCR to confirm.

TREATMENT

Self-limiting. Rest, hydration, Paracetamol. Isolate for 5 days after the swelling starts.

— : Complications: Orchitis (painful, swollen testicles occurring a week later, risk of infertility), Meningitis/Encephalitis, or sudden sensorineural hearing loss.

": A contagious viral infection causing painful, swollen 'hamster cheeks' (parotid glands). While it usually goes away on its own, it can cause painful swollen testicles in men or viral meningitis. It is prevented by the MMR vaccine."

Notifiable Diseases (Public Health)

HISTORY

Presentation depends on the disease (e.g., Measles, Meningitis, TB, Food poisoning, COVID-19). Any strong suspicion of an outbreak or a legally notifiable infectious disease.

EXAMINATION

Varies by disease (e.g., purpuric rash for meningococcal septicaemia).

INVESTIGATIONS

BEDSIDE/ Immediate isolation of the patient if highly infectious (e.g., negative pressure room BEDSIDE/GP: for TB). DEFINITIVE: Do NOT wait for laboratory confirmation to notify the local Health Protection Team (HPT). Prompt notification is a legal duty on clinical suspicion.

TREATMENT

Varies. Public Health teams will trace contacts, provide post-exposure prophylaxis (e.g., antibiotics for meningitis contacts), and manage outbreaks.

— : Failing to notify Public Health promptly can lead to preventable outbreaks and deaths in the community (e.g., a meningitis cluster in a school).

": Certain infectious diseases (like tuberculosis, meningitis, or measles) are so dangerous or spread so easily that doctors are legally required to report them to public health teams immediately to stop outbreaks."

DDx: O

Rubella (German Measles)

HISTORY

(MMR). DEFINITIVE: Notify Public Health. Oral fluid (saliva) swab or blood test for Rubella IgM/IgG to confirm.

EXAMINATION

Prominent suboccipital and postauricular lymphadenopathy. A fine, pink, non-confluent rash starting on the face and spreading to the trunk (fades within 3-5 days).

INVESTIGATIONS

BEDSIDE/GP: Check vaccination

TREATMENT

Supportive (fluids, Paracetamol). Keep away from school/work for 5 days from the onset of the rash.

— : Congenital Rubella Syndrome: If a pregnant woman catches rubella in the first 20 weeks, it causes devastating fetal defects (sensorineural deafness, cataracts, congenital heart disease).

": A mild viral illness that causes a brief rash and swollen glands. It is harmless to children and adults, but highly dangerous to unborn babies. The MMR vaccine has almost eradicated it in the UK."

DDx: S

Surgical Site Infection

HISTORY

Recent surgery (usually within 30 days). Increasing pain at the wound site, redness, swelling, discharge of pus. Systemic symptoms like fever and chills.

EXAMINATION

Erythema extending beyond the wound margins, localized warmth, tenderness, purulent discharge, wound dehiscence (wound edges opening up). Fever.

INVESTIGATIONS

BEDSIDE/GP: Vital signs (check for sepsis). Inspect the wound. DEFINITIVE: Wound swab for microscopy, culture, and sensitivities (often Staphylococcus aureus). Bloods: raised WBC and CRP. Blood cultures if fever present.

TREATMENT

Remove sutures/staples if pus is present to allow drainage. Mild/superficial: Oral antibiotics (e.g., Flucloxacillin). Deep/severe: IV antibiotics, surgical exploration, and debridement.

— : Necrotising fasciitis (pain out of proportion, purple/black skin, crepitus) or systemic sepsis. Deep organ space infection (e.g., intra-abdominal abscess after bowel surgery).

": An infection in the cut made during an operation. The wound becomes red, hot, painful, and leaks pus. Mild cases need antibiotic tablets, but deeper infections might mean opening the wound to clean it out."

Syphilis

HISTORY

and STI screen. DEFINITIVE: Dark-field microscopy of ulcer exudate (shows Treponema pallidum spirochetes). Serology: Treponemal specific tests (EIA/TPPA, remain positive for life) and Non-treponemal tests (VDRL/RPR, indicate disease activity/

EXAMINATION

Primary: Firm, painless, punched-out ulcer. Secondary: Rash on palms/soles is classic. Tertiary: Argyll Robertson pupil (accommodates but does not react to light).

INVESTIGATIONS

BEDSIDE/GP: Full sexual health

TREATMENT

First line: Intramuscular Benzathine Penicillin G (single dose for early syphilis, 3 doses for late latent).

— : Jarisch-Herxheimer reaction: Acute febrile illness with headache and myalgia within 24 hours of starting penicillin due to massive destruction of bacteria. It is self-limiting but warn the patient.

": A sexually transmitted bacterial infection. It starts as a painless sore, then progresses to a full-body rash (especially on the hands and feet). If left untreated for years, it severely damages the brain and heart. It is cured with a penicillin injection."

Trichomonas Vaginalis

HISTORY

Women: Frothy, yellow-green, foul-smelling vaginal discharge. Vulval itching, dysuria, superficial dyspareunia (painful sex). Men: Usually asymptomatic, but may have mild urethral discharge/dysuria.

EXAMINATION

Vulvovaginitis (erythema). Speculum exam: Frothy discharge. Classic 'strawberry cervix' (punctate haemorrhages on the cervix) seen in ~2% of cases.

INVESTIGATIONS

BEDSIDE/GP: Vaginal pH > 4.5. DEFINITIVE: High vaginal swab for NAAT (Nucleic Acid Amplification Test) or direct wet mount microscopy (shows motile, flagellated protozoa).

TREATMENT

Oral Metronidazole (either a single 2g dose or 400mg twice daily for 5-7 days). MUST treat all current sexual partners simultaneously.

— : Increased risk of acquiring/transmitting HIV. Can cause premature rupture of membranes and preterm delivery in pregnant women.

": A sexually transmitted infection caused by a tiny parasite. It causes a frothy, smelly discharge and itching in women, but often has no symptoms in men. It is easily cured with a specific antibiotic, but partners must also be treated."

Paediatrics

4 conditions

Developmental Delay

HISTORY

Child failing to reach expected milestones in one or more domains: Gross Motor (e.g., not walking by 18m), Fine Motor/Vision (e.g., no pincer grip by 12m), Speech/Language (e.g., no words by 18m), or Social/Emotional (e.g., no social smile by 8 weeks).

EXAMINATION

Assess dysmorphic features, muscle tone (spasticity or hypotonia), squint, or hearing deficits. Observe child at play.

INVESTIGATIONS

BEDSIDE/ Check the child's 'Red Book' (Personal Child Health Record). Plot height, weight, and head circumference. BEDSIDE/GP: DEFINITIVE: Formal audiology assessment (ALWAYS rule out hearing loss for speech delay). Vision check. Bloods (Thyroid, Creatine Kinase for muscular dystrophy), Genetic testing (Microarray).

TREATMENT

Multidisciplinary approach: Paediatrician, Speech and Language Therapy (SALT), Physiotherapy, Occupational Therapy, Health Visitor support. Educational support.

— : Loss of previously acquired skills (regression) is an absolute red flag for a progressive neurological or metabolic disorder and requires urgent specialist referral.

": When a child takes longer than expected to reach specific learning, movement, or speaking milestones. We check their hearing and vision first, and involve specialists like speech therapists to help them catch up or identify any underlying conditions."

Down's Syndrome (Trisomy 21)

HISTORY

Prenatal screening. Delayed motor and speech milestones, learning disability. Frequent respiratory or ear infections.

EXAMINATION

Upward slanting palpebral fissures, epicanthic folds, single palmar crease, hypotonia, flat facial profile, large protruding tongue.

INVESTIGATIONS

BEDSIDE/GP: Assess developmental milestones, hearing, and vision. DEFINITIVE: Prenatal: Combined test, NIPT, Amniocentesis. Postnatal: Karyotyping. Echocardiogram (high risk of congenital heart defects like AVSD).

TREATMENT

MDT approach. Physiotherapy, SALT, special educational support. Treat complications (cardiac surgery, thyroid replacement).

— : Atlantoaxial instability (neck pain, weakness in limbs), early-onset Alzheimer's disease, acute leukaemia.

": A genetic condition caused by an extra copy of chromosome 21, resulting in some level of learning disability and specific physical characteristics."

DDx: Other chromosomal trisomies (Edward's, Patau's), Congenital Hypothyroidism. Antenatal screening results Single palmar crease, (NIPT/Combined test). upslanting palpebral fissures, macroglossia. (Hypothyroidism causes coarse features, not these specific facial dysmorphisms). Karyotyping definitively confirms Trisomy 21. Normal TFTs rule out congenital hypothyroidism.

Henoch-Schonlein Purpura (IgA Vasculitis)

HISTORY

Child (typically 3-15 years). Recent upper respiratory tract infection. Presents with a rash, colicky abdominal pain, and joint pain (arthralgia).

EXAMINATION

Non-blanching, symmetrical, palpable purpuric rash (small bruises/red spots), predominantly on the buttocks and extensor surfaces of the legs. Joint swelling (knees/ ankles).

INVESTIGATIONS

BEDSIDE/ Urine dipstick is MANDATORY to check for haematuria and proteinuria (renal BEDSIDE/GP: involvement). Blood pressure. DEFINITIVE: Usually a clinical diagnosis. U&Es, FBC, CRP if diagnosis unclear or severe.

TREATMENT

Mostly supportive: Analgesia (Paracetamol/NSAIDs), rest. Very close follow-up of blood pressure and urine dipstick for at least 6 months to monitor for kidney disease.

— : Significant renal involvement (nephritis/nephrotic syndrome), severe GI bleeding, or intussusception (severe abdo pain/redcurrant jelly stool).

": A self-limiting condition where tiny blood vessels become inflamed, causing a spotty rash on the legs and bottom, plus joint and tummy pain. We must monitor their urine to ensure the kidneys are safe."

Kawasaki Disease

HISTORY

Prolonged high fever (>5 days) in a child (usually <5 years old) that does not respond well to Paracetamol. Extreme irritability, rash, red eyes, and peeling skin.

EXAMINATION

CRASH and Burn: Conjunctivitis (bilateral, non-purulent), Rash (polymorphous), Adenopathy (cervical lymph node >1.5cm), Strawberry tongue/cracked lips, Hands/feet swelling or peeling. 'Burn' = Fever >5 days.

INVESTIGATIONS

BEDSIDE/GP: Urine dipstick, vital signs. DEFINITIVE: Urgent Paediatric assessment. Echocardiogram is critical (to check for coronary artery aneurysms). Bloods: markedly raised CRP/ESR, high platelets (thrombocytosis) in the second week.

TREATMENT

to protect the blood vessels around the heart from permanent damage."

— : Coronary artery aneurysms are the most feared complication, leading to myocardial infarction (heart attacks) in young children if IVIG is not given promptly.

": A rare but serious inflammatory illness in young children that causes a prolonged high fever, red eyes, a rash, and a 'strawberry' tongue. It requires urgent hospital"

Allergy & Immunology

3 conditions

Allergic disorder

HISTORY

Itchy eyes, sneezing, rhinorrhoea, itchy rash (hives), lip/tongue swelling after exposure to trigger (food, pollen, pet, drug).

EXAMINATION

Urticarial rash (weals), angioedema, conjunctival injection, wheeze.

INVESTIGATIONS

BEDSIDE/GP: Assess airway/breathing (ABCDE). DEFINITIVE: Clinical diagnosis. Specific IgE tests (RAST) or skin prick testing later in immunology clinic.

TREATMENT

Avoid trigger. Oral non-sedating antihistamines (Cetirizine, Loratadine). Topical nasal steroids for rhinitis. Epipen for severe reactions.

— : Anaphylaxis (stridor, severe wheeze, hypotension, collapse) - requires immediate IM Adrenaline.

": An overreaction of the immune system to a harmless substance. We manage it by avoiding the trigger and using antihistamine medicines."

Hyposplenism / Splenectomy

HISTORY

of surgical removal of spleen (trauma/ITP) or functional hyposplenism (e.g., Sickle Cell Disease, Coeliac Disease).

Usually asymptomatic, but high risk of overwhelming severe infections.

HISTORY

. DEFINITIVE: Blood film shows Howell-Jolly bodies (indicates the spleen is not filtering out old red blood cell fragments).

EXAMINATION

Surgical scar in the left upper quadrant. Absence of palpable spleen.

INVESTIGATIONS

BEDSIDE/GP: Check vaccination

TREATMENT

Preventative: Lifelong prophylactic antibiotics (Phenoxymethylpenicillin). Vaccinations (Pneumococcus, Haemophilus influenzae type B, Meningococcus). Patient MUST carry a 'Spleen Card'.

— : Overwhelming Post-Splenectomy Infection (OPSI): A minor infection can rapidly escalate to fatal septic shock. Any fever in these patients requires immediate hospital admission and IV antibiotics.

": Living without a spleen (or with one that doesn't work). The spleen is a vital part of the immune system. Without it, you are at risk of very severe bacterial infections, so you must take daily antibiotics and get special vaccines."

Surgery & Vascular

1 conditions

Gangrene

HISTORY

of peripheral arterial disease, diabetes, or severe trauma. Severe pain (or painless if neuropathic), dark discolouration of digits/limbs, foul-smelling discharge if 'wet' gangrene.

EXAMINATION

Dry gangrene: hard, dry, black, mummified tissue with a clear demarcation line. Wet gangrene: swollen, soft, putrid, with systemic signs of infection/sepsis.

INVESTIGATIONS

BEDSIDE/GP: Check peripheral pulses, ABPI. Vital signs (check for sepsis). DEFINITIVE: Bloods (FBC, CRP, U&Es, HbA1c). Wound swabs. X-ray of affected limb (rule out osteomyelitis/gas in soft tissues).

TREATMENT

Urgent vascular/surgical referral. Dry: Revascularisation to heal amputation margins, then amputation. Wet: Broad-spectrum IV antibiotics and emergency surgical debridement/ amputation.

— : Gas gangrene (crepitus in tissues) is a rapid, life-threatening clostridial infection requiring emergency extensive surgery and penicillin.

": Death of body tissue due to a lack of blood supply or a severe bacterial infection. 'Dry' gangrene shrivels and turns black, while 'wet' gangrene is infected and spreads quickly, often needing urgent surgery."

General Practice & Preventive Medicine

1 conditions

Adverse drug effects

HISTORY

(including OTC and herbals). DEFINITIVE: Targeted bloods (e.g., U&Es for ACEi, LFTs for statins, FBC for methotrexate). Drug levels (Digoxin, Lithium, Phenytoin).

EXAMINATION

Depends on drug. Look for urticaria, jaundice, signs of bleeding (bruising), or altered mental state.

INVESTIGATIONS

BEDSIDE/GP: Review medication

TREATMENT

Stop or reduce the offending drug. Supportive care. Report severe/novel reactions via the MHRA Yellow Card scheme.

— : Anaphylaxis, Steven-Johnson Syndrome (severe blistering rash), acute liver/ kidney failure, agranulocytosis.

": An unwanted reaction to a medication. It can range from mild stomach upset to severe allergic reactions. We usually stop the drug and report the reaction."

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Intussusception	*Gastroenterology & Hepatology*
Iritis / Anterior Uveitis	*Ophthalmology*
Irritable Bowel Syndrome (IBS)	*Gastroenterology & Hepatology*

J

Joint Dislocation (e.g., Shoulder)	*Musculoskeletal*

K

Kawasaki Disease	*Paediatrics*

L

Lethargy, SOB on exertion, palpitations. Hx of heavy periods or GI bleeding.	*Haematology & Oncology*
Leukaemia (General)	*Haematology & Oncology*
Liver Failure (Acute)	*Gastroenterology & Hepatology*
Lower Limb Fractures (Neck of Femur)	*Musculoskeletal*
Lower Limb Soft Tissue Injury (ACL Tear)	*Musculoskeletal*
Lung Cancer	*Respiratory*
Lyme Disease	*Infection & Microbiology*
Lymphoma (Hodgkin and Non-Hodgkin)	*Haematology & Oncology*

M

Macular Degeneration (Age-Related / AMD)	*Ophthalmology*
Malabsorption (e.g., Chronic Pancreatitis / Coeliac)	*Gastroenterology & Hepatology*
Malaria	*Infection & Microbiology*
Malnutrition & Refeeding Syndrome	*Gastroenterology & Hepatology*

Mastitis (Lactational)	*Obstetrics & Gynaecology*
May have a history of smoking.	*Respiratory*
May have numbness, tingling, or inability to move limbs.	*Neurology & Neurosurgery*
Measles	*Infection & Microbiology*
Meniere's Disease	*ENT*
Meningitis (Bacterial)	*Neurology & Neurosurgery*
Menopause	*Obstetrics & Gynaecology*
Mesenteric Adenitis	*Gastroenterology & Hepatology*
Mesothelioma	*Respiratory*
Metastatic Disease (General)	*Haematology & Oncology*
Migraine	*Neurology & Neurosurgery*
Minor/Trait is usually asymptomatic. Common in Mediterranean/Asian descent.	*Haematology & Oncology*
Miscarriage	*Obstetrics & Gynaecology*
Mitral Valve Disease (Stenosis/Regurgitation)	*Cardiovascular*
Motor Neurone Disease (MND / ALS)	*Neurology & Neurosurgery*
Multi-organ Dysfunction Syndrome (MODS)	*Acute & Emergency*
Multiple Myeloma	*Haematology & Oncology*
Multiple Sclerosis (MS)	*Neurology & Neurosurgery*
Mumps	*Infection & Microbiology*
Muscular Dystrophies (e.g., Duchenne)	*Neurology & Neurosurgery*
Myasthenia Gravis	*Neurology & Neurosurgery*
Myocarditis / Pericarditis	*Cardiovascular*

N

Necrotising Enterocolitis (NEC)	*Gastroenterology & Hepatology*
Necrotising Fasciitis	*Acute & Emergency*
Nephrotic Syndrome	*Renal & Urology*
Neuropathies (Guillain-Barré Syndrome)	*Neurology & Neurosurgery*
Non-Accidental Injury (Child Safeguarding)	*Mental Health & Psychiatry*
Norovirus)	*Gastroenterology & Hepatology*
Notifiable Diseases (Public Health)	*Infection & Microbiology*

O

Obesity	*Endocrinology & Metabolic*
Obstructive Sleep Apnoea	*Respiratory*
Occupational Lung Disease (Silicosis/Coal Worker's)	*Respiratory*
Oesophageal Cancer	*Gastroenterology & Hepatology*
Optic Neuritis	*Ophthalmology*
Osteoarthritis	*Musculoskeletal*
Osteomalacia / Rickets	*Endocrinology & Metabolic*
Osteomyelitis	*Musculoskeletal*
Osteoporosis	*Musculoskeletal*
Otitis Externa (Swimmer's Ear)	*ENT*
Otitis Media (Acute)	*ENT*
Outbreaks typically occur in winter.	*Respiratory*
Ovarian Cancer	*Obstetrics & Gynaecology*

P

Palpitations, SOB, syncope, fatigue. Often asymptomatic.	*Cardiovascular*
Pancreatic Cancer	*Gastroenterology & Hepatology*
Pancytopenia	*Haematology & Oncology*
Parkinson's Disease	*Neurology & Neurosurgery*

Patient on Anticoagulant / Antiplatelet Therapy	*Cardiovascular*
PCOS, Tamoxifen use.	*Obstetrics & Gynaecology*
Pelvic Inflammatory Disease (PID)	*Obstetrics & Gynaecology*
Pelvic Organ Prolapse	*Obstetrics & Gynaecology*
Peptic Ulcer Disease	*Gastroenterology & Hepatology*
Perianal Abscesses and Fistulae	*Gastroenterology & Hepatology*
Periorbital and Orbital Cellulitis	*Ophthalmology*
Peripheral Vascular Disease	*Cardiovascular*
Peritonitis	*Gastroenterology & Hepatology*
Pituitary Tumours (Adenomas)	*Endocrinology & Metabolic*
Placenta Praevia	*Obstetrics & Gynaecology*
Placental Abruption	*Obstetrics & Gynaecology*
Pleural Effusion	*Respiratory*
Pneumonia	*Respiratory*
Pneumothorax	*Respiratory*
Polycystic Ovary Syndrome (PCOS)	*Obstetrics & Gynaecology*
Polymyalgia Rheumatica (PMR)	*Musculoskeletal*
Polyuria, polydipsia, weight loss, fatigue, recurrent thrush/infections.	*Endocrinology & Metabolic*
Postpartum Haemorrhage (PPH)	*Obstetrics & Gynaecology*
Pre-eclampsia	*Obstetrics & Gynaecology*
Prematurity / Pre-term Labour	*Obstetrics & Gynaecology*
Pressure Sores (Decubitus Ulcers)	*Dermatology*
Prostate Cancer	*Renal & Urology*
Psoriasis	*Dermatology*
(PTSD)	*Mental Health & Psychiatry*
Pulmonary Embolism (PE)	*Cardiovascular*
Pulmonary Hypertension	*Cardiovascular*
Pyloric Stenosis	*Gastroenterology & Hepatology*

R

Radiculopathy / Sciatica	*Neurology & Neurosurgery*
Raised Intracranial Pressure (Idiopathic/General)	*Neurology & Neurosurgery*
Reactive Arthritis	*Musculoskeletal*
Respiratory Arrest	*Acute & Emergency*
Respiratory Failure	*Acute & Emergency*
Retinal Detachment	*Ophthalmology*
Retinopathy (Diabetic)	*Ophthalmology*
Rheumatoid Arthritis	*Musculoskeletal*
Rhinosinusitis (Acute and Chronic)	*ENT*
Right Heart Valve Disease (Tricuspid/Pulmonary)	*Cardiovascular*
Rubella (German Measles)	*Infection & Microbiology*
RUQ pain, high fever/rigors, and jaundice (Charcot's Triad). Dark urine.	*Gastroenterology & Hepatology*

S

Sarcoidosis	*Respiratory*
Scabies	*Dermatology*
Schizophrenia	*Mental Health & Psychiatry*
Scleritis	*Ophthalmology*
Secondary: patients with underlying lung disease (COPD/Asthma).	*Respiratory*

Self-Harm	*Mental Health & Psychiatry*
Sepsis	*Acute & Emergency*
Septic Arthritis	*Musculoskeletal*
Severe/late: Rest pain (worse at night, hanging foot out of bed relieves it).	*Cardiovascular*
Sexual Dysfunction (Erectile Dysfunction)	*Renal & Urology*
Sickle Cell Disease / Crisis	*Haematology & Oncology*
Skin Cancer (Melanoma, SCC, BCC)	*Dermatology*
Sleep Disorders (Obstructive Sleep Apnoea)	*Respiratory*
Somatisation (Somatic Symptom Disorder)	*Mental Health & Psychiatry*
Spinal Cord Compression	*Acute & Emergency*
Spinal Fracture / Injury	*Neurology & Neurosurgery*
Storage (frequency, urgency, nocturia).	*Renal & Urology*
Subarachnoid Haemorrhage (SAH)	*Neurology & Neurosurgery*
Subdural Haemorrhage	*Neurology & Neurosurgery*
Substance Use Disorder (Alcohol Dependence)	*Mental Health & Psychiatry*
Surgical Site Infection	*Infection & Microbiology*
Syphilis	*Infection & Microbiology*
Systemic Lupus Erythematosus (SLE)	*Musculoskeletal*

T

Tension Headache	*Neurology & Neurosurgery*
Termination of Pregnancy	*Obstetrics & Gynaecology*
Testicular Torsion	*Renal & Urology*
Thyroid Nodules / Thyroid Eye Disease	*Endocrinology & Metabolic*
Transfusion Reactions	*Acute & Emergency*
Transient Ischaemic Attack (TIA)	*Cardiovascular*
Trichomonas Vaginalis	*Infection & Microbiology*
Trigeminal Neuralgia	*Neurology & Neurosurgery*
Triggers: stress, strep throat, certain drugs (beta-blockers).	*Dermatology*
Tuberculosis (TB)	*Respiratory*

U

Ulcerative Colitis (UC)	*Gastroenterology & Hepatology*
Unilateral calf swelling, pain, warmth. Risks: surgery, immobility, cancer, COCP.	*Cardiovascular*
Upper Respiratory Tract Infection (URTI) & Tonsillitis	*Respiratory*
Upper/Lower Limb Fractures & Soft Tissue Injuries	*Musculoskeletal*
Urinary Tract Infection (Upper / Pyelonephritis)	*Renal & Urology*
Urticaria, Varicella, & Viral Exanthema	*Dermatology*
Usually asymptomatic, but high risk of overwhelming severe infections.	*Allergy & Immunology*

V

Varicose Veins, Venous Ulcers, & VTE	*Cardiovascular*
Vasa Praevia	*Obstetrics & Gynaecology*
Vitamin B12 and/or Folate Deficiency	*Neurology & Neurosurgery*
Volvulus & Whooping Cough	*Gastroenterology & Hepatology*

W

Wernicke's	*Neurology & Neurosurgery*
Wernicke's: alcoholic with sudden confusion and wobbliness.	*Neurology & Neurosurgery*
Worse after large meals or lying down.	*Gastroenterology & Hepatology*

A note on this book

This book was written and compiled by Malik Abdalla, with the assistance of artificial intelligence tools during the drafting and formatting process.

All clinical content has been aligned with NICE guidelines, the BNF, and the UKMLA MLA Content Map. While every effort has been made to ensure accuracy, this resource is intended for revision purposes only. It does not constitute medical advice and should not be used as a substitute for clinical judgement or current national guidance.

Always verify dosing, investigations, and management plans against the most current NICE CKS, BNF, and local trust guidelines before applying in practice.

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